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IN THE UNITED STATES DISTRICT COURT
 FOR THE EASTERN DISTRICT OF CALIFORNIA — FRESNO DIVISION

CENTRAL VALLEY CHRYSLER-JEEP,
 INC., et al.,

v. Plaintiffs,
 CATHERINE E. WITHERSPOON, in her
 official capacity as Executive Officer of the
 California Air Resources Board,

Defendant,
 ASSOCIATION OF INTERNATIONAL
 AUTOMOBILE MANUFACTURERS,

Plaintiff-Intervenor,
 SIERRA CLUB, NATURAL RESOURCES
 DEFENSE COUNCIL, ENVIRONMENTAL
 DEFENSE, BLUEWATER NETWORK,
 GLOBAL EXCHANGE and RAINFOREST
 ACTION NETWORK,

Defendant-Intervenor.

NO. 1:04-CV-06663-AWI-LJO
 DECLARATION OF DAVID DONIGER
 IN SUPPORT OF DEFENDANT AND
 DEFENDANT-INTERVENORS'
 MOTION FOR SUMMARY
 JUDGMENT OF FOREIGN POLICY
 CLAIM

Date: December 11, 2006
 Time: 1:30 p.m.
 Courtroom: Two
 Judge: Honorable Anthony W. Ishii

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Declaration of Counsel

I, David Doniger, declare:

1. I am a senior attorney for the Natural Resources Defense Council. I represent Defendant-Intervenor Sierra Club, Natural Resources Defense Council, and Environmental Defense in this matter. I am a member in good standing of the State of California Bar and the Bar of this Court.

2. The exhibits attached hereto are true and correct copies.

(a) Exhibit A, Testimony of James Connaughton, Chairman, White House Council on Environmental Quality, before the House Comm. on Government Reform (July 20, 2006), was downloaded this date from the website of the Government Reform Committee of the United States House of Representatives,

<http://reform.house.gov/UploadedFiles/CEQ%20-%20Connaughton%20Testimony.pdf>

(b) Exhibit B, Anthony DePalma, *9 States in Plan to Cut Emissions*, *New York Times* (Aug. 24, 2005) at A1, was downloaded from the website of the *New York Times*,

<http://select.nytimes.com/search/restricted/article?res=F30715FF35A0C778EDDA10894DD404482>

(c) Exhibit C, Statement of Harlan Watson, Senior Climate Negotiator and Special Representative and Head of Delegation, to the Ninth Meeting of the Parties to the United Nations Framework Convention on Climate Change, Milan (Dec. 4, 2003), was downloaded from the website of the United States Department of State,

<http://www.state.gov/docs/rls/rlm/2003/26894.htm>.

(d) Exhibit D, Statement of Harlan L. Watson, Senior Climate Negotiator and Special Representative and Alternate Head of the U.S. Delegation, COP 11/MOP 1 Press Conference, Montréal, Canada (Nov. 29, 2005), was downloaded from the website of the United States Department of State, <http://www.state.gov/docs/rls/rlm/5749.htm>.

Dec. of David Doniger in Support of D. & D-Is Mot. For SJ on Foreign Pol. Claim No. 1:04-CV-06663-AWL-LJO

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(e) Exhibit E, Brief for *Amicus Curiae* Madeleine K. Albright, was filed August 31, 2006, in the Supreme Court in *Massachusetts v. EPA*, cert. granted 126 S. Ct. 2960.

(f) Exhibit F, Regional Greenhouse Gas Initiative, Memorandum of Understanding, signed by the governors of Connecticut, Delaware, Maine, New Hampshire, New Jersey, New York, and Vermont (Dec. 20, 2005), was downloaded from the website of the Regional Greenhouse Gas Initiative, http://www.rggi.org/docs/mou_final_12_20_05.pdf.

I declare under penalty of perjury this 8th day of November 2006, that the foregoing is true and correct.

/s/ David Doniger
DAVID DONIGER

Dec. of David Doniger in Support of D. & D-Is Mot. For SJ on Foreign Pol. Claim No. 1:04-CV-06663-AWL-LJO

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**Testimony of
James L. Connaughton
Chairman, White House Council on Environmental Quality
Before the United States House of Representatives
Committee on Government Reform
July 20, 2006**

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INTRODUCTION

Mr. Chairman, thank you for inviting me to testify on the long-term challenge of global climate change. The President and his Administration are firmly committed to taking sensible action on climate change. The Administration's climate change policy is science-based, encourages research breakthroughs that lead to technological innovation, and takes advantage of the power of markets to bring those technologies into widespread use. Our growth-oriented strategy encourages meaningful global participation through actions that will help ensure the continued economic growth and prosperity for our citizens and for citizens throughout the world. Economic growth provides the resources that enable investment in the technologies and practices we need to address the rise in greenhouse gases.

Domestically, in 2002, President Bush set an ambitious national goal to reduce the greenhouse gas intensity (emissions per unit of GDP) of the U.S. economy by 18 percent by 2012. At the time, this commitment was estimated to achieve about 100 million additional metric tons of reduced carbon-equivalent emissions in 2012, with more than 500 million metric tons of carbon-equivalent emissions in cumulative savings over the decade. Our objective is to significantly slow the growth of greenhouse gas emissions and, as the science justifies, stop it and then reverse it. While measuring progress in absolute terms is important, the most useful measure for policy management purposes is relative improvement in greenhouse gas emissions intensity. The intensity measure appropriately recognizes reductions that are achieved through increased investment in efficiency, productivity and economically valuable activities that require less energy or otherwise lead to fewer emissions. The intensity measure sharply discounts reductions produced by economic decline, job loss, or policies that simply shift greenhouse gas emitting activity from the U.S. to another country – in which case the desired emission reduction did not actually happen.

With this in mind, the Administration is now implementing more than 60 federal programs

— including partnerships, consumer information campaigns, incentives, and mandatory regulations — that are directed at developing and deploying cleaner, more efficient energy technologies, conservation, biological sequestration, geological sequestration and adaptation. For example, the Department of Energy's (DOE) Climate VISION program and the Environmental Protection Agency's (EPA) Climate Leaders and SmartWay Transport Partnership programs work in voluntary partnership with specific commitments by industry to verifiably reduce emissions. In terms of incentives, new tax rules on expensing and dividends are helping to unleash substantial new capital investment, including purchases of cleaner, more efficient equipment and facilities. The EPAct of 2005 provides for approximately \$5 billion in tax credits and incentives over 5 years.

The Department of Agriculture is using its conservation programs to provide substantial incentives to increase carbon sequestration in soils and trees, and to reduce methane and nitrous oxide emissions, two additional and potent green house gases, from crop and animal agricultural systems. DOE, in partnership EPA, USDA, and other federal agencies, also is pursuing many energy supply technologies with comparatively low or zero carbon dioxide emissions profiles, such as solar, wind, geothermal, bioenergy, and combined heat and power, and a new generation of nuclear power. The Bush Administration has mandated a 15 percent improvement in fuel economy of new light trucks and sport utility vehicles, required use of 7.5 billion gallons of renewable ethanol by 2012, and is establishing 15 new mandatory efficiency standards for new appliances. These programs, and several others, are highlighted in the next section of my testimony.

From 2001 to the end of 2006, the federal government will have devoted nearly \$29 billion to climate science, technology, international assistance, and incentive programs, more than any other nation. The President's Fiscal Year 2007 budget calls for \$6.5 billion for climate-related activities. Broad bipartisan consensus continues to sustain this high level of federal taxpayer

investment. In 2002, the President called for action at all levels of government and across all sectors. Many of our states and cities are experimenting with similar portfolios of voluntary measures, incentives, and locally relevant mandatory measures. Many of these build on or partner with related federal programs.

We expect these efforts will significantly contribute to meeting the President's 18 percent, 10-year goal, which represents an average annual rate of improvement of about 1.96 percent. A June 2006 EIA preliminary estimate of energy-related carbon dioxide emissions — which account for over four fifths of total greenhouse gas emissions — suggests an improvement in carbon dioxide emissions intensity of 3.3 percent in 2005. Although we are only a few years into the effort, the nation appears well on track to meet the President's goal.

Progress in the U.S. compares favorably with progress being made by other countries. Attachment 1 (Trends in GHG Emissions: 2000-2004) and Attachments 2 (Trends in GHG Emissions Intensity: 2000-2004) show how emission trends in the U.S. compare to other industrialized countries based on national data reported to the UN Framework Convention on Climate Change. The data in Attachment 1, which includes countries that have obligations under the Kyoto Protocol, indicate that from 2000 to 2004 the major developed economies of the world are at about the same place in terms of actual GHG emissions. In some countries, emissions are increasing slightly, in others they are decreasing slightly. Contrary to some popular misconceptions, no country is yet able to decrease its emissions massively. Note that the U.S. has seen its actual emissions increase at a slower rate than the European Union 25, 1.3 percent compared to 2.1 percent.

Attachment 2 shows progress in emissions intensity for the same countries over the same period. Major industrialized countries are all in the 10 percent range for emissions intensity improvement, showing that these economies, with very sophisticated infrastructure and systems, are

in the process of turning over capital stock to more productive and efficient technologies and practices. The ongoing focus is to take actions to help accelerate that turnover to cleaner and more advanced technologies.

Internationally, the President is working closely with key world leaders in the Asia-Pacific region and with his G-8 counterparts who agreed last year that we need a more integrated agenda of action that addresses the interlinked objectives of improved energy security, cleaner air and reduction in greenhouse gases. This integrated agenda will promote economic growth, reduce poverty, provide access to modern sanitation and clean water, enhance agricultural productivity, provide energy security, reduce pollution, and mitigate greenhouse gas emissions. Since 2001, the United States has established 15 climate partnerships with key countries and regional organizations that, together with the United States, account for almost 80 percent of global greenhouse gas emissions. Successful joint projects have been initiated in areas such as climate change research and science, climate observation systems, clean and advanced energy technologies, carbon capture, storage and sequestration, and other policy approaches to reducing greenhouse gas emissions. Among the most notable efforts with a strong, practical emphasis on expanding and accelerating both near- and long-term investment in existing and new technologies are the recently established Asia-Pacific Partnership on Clean Development and Climate, the Methane to Markets Partnership, FutureGen (zero-emission coal), the Renewable Energy and Energy Efficiency Partnership, the Carbon-Sequestration Leadership Forum, the International Partnership for a Hydrogen Economy, the emerging Global Nuclear Energy Partnership, and related bilateral initiatives promoting this vital zero-emission energy source.

Our work on practical measures at the international level is increasingly important, as total carbon dioxide emissions from fossil fuel consumption from non-Organization of Economic Cooperation and Development (OECD) countries — which includes such large developing

countries as China and India — are expected to outpace those from OECD countries, possibly as soon as 2010 according to projections in EIA's International Energy Outlook 2006 (See Attachment 3: World Carbon Dioxide Emissions by Region: 2003-2030). EIA reports that in 2003, carbon dioxide emissions from OECD countries and non-OECD countries accounted for 53 percent and 47 percent, respectively, of the world total. EIA projects that in 2030, OECD countries will account for 40 percent of world carbon dioxide emissions, and non-OECD countries will account for 60 percent. EIA also projects that non-OECD countries will account for 77 percent of the total projected increase in global emissions from 2002 to 2030. These EIA projections are consistent with recent projections from the International Energy Agency. Its World Energy Outlook 2004 suggests that well over two thirds of the projected increase in energy-related carbon dioxide emissions between now and 2030 will be from developing countries. Nevertheless, these countries also hold great promise for improvement in GHG intensity (See Attachment 4: Carbon Dioxide Intensity Improvement Projections by Selected Countries and Regions).

At the World Summit on Sustainable Development in Johannesburg, South Africa in 2002, the developing countries insisted, and the international community agreed to the Johannesburg Plan of Implementation, on the primacy of the development agenda over an agenda exclusively focusing on decarbonizing economies. Given these considerations, the reluctance of developing countries to take on Kyoto-style emissions caps — which could make achieving economic and social development goals much more difficult — is well founded. That is why the Administration believes that the most effective way to engage developing countries is to focus not solely on climate change, but rather on a broader development agenda that promotes economic growth, reduces poverty, provides access to clean water and modern sanitation, enhances agricultural productivity, provides energy security, reduces pollution, and mitigates greenhouse gas emissions.

The Administration's international efforts received a strong boost from the passage of Title XVI of the Energy Policy Act of 2005.

DOMESTIC PROGRAMS

The President has launched and is implementing a broad portfolio of groundbreaking domestic initiatives to improve our understanding of climate science and to develop new technologies. Let me take a moment to highlight some of the most interesting and consequential:

Energy Policy Act of 2005. The Energy Policy Act of 2005, which the President signed into law last year, authorized \$5 billion over five years in tax incentives to encourage investments in energy efficiency and alternative renewable energy sources. The new energy law provides new performance-based tax credits of up to \$3,400 for the most highly fuel efficient vehicles such as hybrids and clean diesel. It also establishes 15 new appliance efficiency mandates and a 7.5 billion gallon renewable fuel requirement by 2012. These actions will help power our growing economy, improve air quality, and reduce greenhouse gas emissions (See Attachment 5: Energy Bill Tax Incentives)

Advanced Energy Initiative. In his 2006 State of the Union Address, President Bush announced the Advanced Energy Initiative and proposed a 22 percent increase in funding for clean energy technology research at the Department of Energy. The Initiative supports new transportation and power technologies that will help achieve significant reductions of oil imports, lead to substantial reductions in air pollution and greenhouse gas emissions, and increase economic and energy security. We will change how we power our homes and offices by increasing investments in zero-emission coal-fired plants, revolutionary solar and wind technologies, and clean, safe nuclear

energy. We will also change how we power our cars by improving batteries for hybrid and plug-in hybrid vehicles, making cellulosic ethanol cost-competitive with corn-based ethanol by 2012, and by accelerating the development of zero-emission cars that run on hydrogen. To reduce oil consumption, AEI focuses on transportation technologies to advance commercialization of hybrid vehicles, cellulosic ethanol, and hydrogen-powered fuel cell vehicles and infrastructure. With an increased focus on these technologies, the AEI transportation research and development plan will also:

- Develop advanced battery technologies that allow a plug-in hybrid-electric vehicle to have a 40-mile range operating solely on battery charge.
- Foster breakthrough technologies needed to make cellulosic ethanol derived from agricultural waste products, such as wood chips, stalks, or switch grass cost-competitive with gasoline.
- Accelerate progress towards the President's goal of making it practical and cost-effective for large numbers of Americans to choose hydrogen fuel cell vehicles.
- Initiating a new Global Nuclear Energy Partnership (GNEP), which I will describe in the next section.
- Develop clean coal technologies through ventures like FutureGen, a key part of the Coal Research Initiative. FutureGen is a partnership between government and the private sector to build a near-zero atmospheric emissions demonstration coal plant that captures the carbon dioxide it produces and stores it in deep geologic formations.
- Reduce the cost of solar photovoltaic technologies so that they become cost-competitive by 2015.
- Expand access to wind energy by developing wind turbines for use in low speed wind environments, which are closer to population centers.

Global Nuclear Energy Partnership (GNEP). The Global Nuclear Energy Partnership (GNEP), announced in February 2006 as part of the Advanced Energy Initiative, seeks to develop worldwide consensus on enabling expanded use of economical, zero-emission nuclear energy to meet growing electricity demand. America will work with nations that have advanced civilian nuclear energy programs, such as France, Japan, and Russia. GNEP will use new technologies that effectively and safely recycle spent nuclear fuel. Re-processing spent uranium fuel for use in advanced reactors will allow us to extract more energy. It also has the potential to significantly reduce storage requirements for nuclear waste. With re-processing, Yucca Mountain could hold America's nuclear waste through the end of the 21st century. Through our partnership, we can also help developing countries meet their growing energy needs by providing them with small-scale reactors that will be secure and cost-effective. We will also ensure that developing nations have a reliable nuclear fuel supply. In exchange, these countries would agree to use nuclear power only for civilian purposes and forego uranium enrichment and reprocessing activities that can be used to develop nuclear weapons. The President's FY'07 budget request includes \$250 million to launch this initiative. By working with other nations under the Global Nuclear Energy Partnership, we can provide the cheap, safe, and clean energy that growing economies need, while reducing the risk of nuclear proliferation.

Climate Change Technology Program (CCTP). The President's FY'07 budget seeks nearly \$3 billion for the programs coordinated through the Climate Change Technology Program (CCTP), a multi-agency program that increases the development and use of key technologies aimed at reducing GHG emissions. The intent of this program is to reduce, avoid, or sequester greenhouse gas emissions by stimulating the development and use of renewable, clean coal, fusion, nuclear and

other energy technologies and by increasing energy efficiency throughout the U.S. economy. This request includes over \$300 million for the National Climate Change Technology Initiative (NCCTI), a set of priority activities that address technological challenges, which, if solved, could advance breakthrough technologies that will dramatically reduce, avoid, or sequester greenhouse gas emissions.

Climate Change Science Program (CCSP). The President's 2007 Budget request includes \$1.715 billion for the Climate Change Science Program (CCSP), a multi-agency program led by the Department of Commerce, charged with: investigating natural and human-induced changes in the Earth's global environmental system; monitoring, understanding, and predicting global change; and providing a sound scientific basis for national and international decision-making. The CCSP combines the near-term focus of the Administration's Climate Change Research Initiative — including a focus on advancing the understanding of aerosols and carbon sources and sinks and improvements in climate modeling — with the breadth of the long-term research elements of the US Global Change Research Program. CCSP integrates research and observational approaches across disciplinary boundaries and is also working to create more seamless approaches between theory, modeling, observations, and applications required to address the multiple scientific challenges posed by changes in climate.

In July 2002, the CCSP undertook a year-long process to prepare a new 10-year strategic plan for the program. The planning process was designed to ensure a comprehensive examination of research and observation needs, transparent review by the national and international scientific and stakeholder communities, and establishment of defined goals for research on climate and global change. Approximately 1,300 scientists and other participants were involved in the development and review of the strategic plan. In addition, the National Academy of Sciences twice reviewed the

plan and gave its approval. The plan identifies both overarching goals and core approaches for achieving those goals. The CCSP is now in the process of implementing the 10-year strategic plan.

Improved Corporate Average Fuel Economy (CAFE) Standards. Since 2003, the Bush

Administration has finalized two sets of Corporate Average Fuel Economy (CAFE) regulations requiring a combined 15 percent increase in the fuel economy of light trucks. For the first time, large Sport Utility Vehicles, including Hummers, are required to meet the standards. The Administration is implementing program improvements recommended by the National Academy of Sciences to ensure that we not only save fuel, but also lives and American jobs. These actions are projected to save more than 14 billion gallons of gasoline over the lifetime of these trucks, and correspondingly avoid nearly 177 million metric tons of carbon dioxide emissions. We strongly urge Congress to give us authority to establish new rules on passenger car fuel economy based on these concepts.

Surface Transportation Programs. The Department of Transportation's surface transportation

programs can be used by state and local transportation agencies to help reduce fuel usage and greenhouse gas emissions. The Congestion Mitigation and Air Quality Improvement Program and innovative finance programs can help fund projects like truck stop electrification for reduced truck idling and diesel retrofit. System management projects that relieve congestion, improve traffic flow and increase transit use also help reduce fuel usage. Transit funds are available for purchase of hydrogen-powered and other clean-fueled buses. FAA is pursuing initiatives for more efficient air traffic management, which will reduce aircraft fuel use, and FAA's Partnership for Air Transportation Noise and Emission Reduction is conducting research on climate change impacts of aviation.

SmartWay Transportation Partnership. Announced in February 2004, SmartWay is a voluntary partnership between various freight industry sectors and the Environmental Protection Agency designed to increase energy efficiency while significantly reducing greenhouse gases (or gas emissions) and air pollution. There are three primary components of the program: creating partnerships, reducing all unnecessary engine idling (for example, by upgrading truck stops and encouraging trucks to plug-in overnight instead of running their engines), and increasing the efficiency and use of rail and intermodal operations. Shipping, truck and rail companies are enrolled in the program. By 2012, this initiative aims to reduce between 33 and 66 million metric tons of carbon dioxide (CO₂) emissions and up to 200,000 tons of nitrogen oxide (NO_x) emissions per year. The State of Oregon, for example, recently announced a program of tax credits and loans available to truckers who buy SmartWay retrofit kits that reduce diesel emissions. The loans are supported through the Department of Transportation's State Infrastructure Bank program.¹

Energy STAR. In 1992 the U.S. Environmental Protection Agency (EPA) introduced Energy STAR as a voluntary labeling program designed to identify and promote energy-efficient products to reduce greenhouse gas emissions. Computers and monitors were the first labeled products. Through 1995, EPA expanded the label to additional office equipment products and residential heating and cooling equipment. In 1996, EPA partnered with the U.S. Department of Energy for particular product categories. The Energy STAR label is now on major appliances, office equipment, lighting, home electronics, and more. EPA has also extended the label to cover new homes and commercial and industrial buildings. Through its partnerships with more than 8,000 private and public sector

¹ <http://www.deq.state.or.us/msd/taxcredits/factsheets/TruckEngineTaxCreditFactSheet.pdf>

organizations. Energy STAR delivers the technical information and tools that organizations and consumers need to choose energy-efficient solutions and best management practices. Over the past decade, Energy STAR has been a driving force behind the more widespread use of such technological innovations as LED traffic lights, efficient fluorescent lighting, power management systems for office equipment, and low standby energy use.² Smart consumer purchases informed by programs such as Energy STAR and projected to have saved consumers \$12 billion on their utility bills, and avoided 44 million metric tons carbon-equivalent (MMTCE), the equivalent to emissions from 23 million cars.

Natural Gas STAR. The Natural Gas STAR Program is a flexible, voluntary partnership between EPA and the oil and natural gas industry. Through the Program, EPA works with companies to identify and promote the use of cost-effective technologies and practices to reduce emissions of methane.³ Methane is greenhouse gas that is more than 20 times more potent than CO₂ and has a shorter atmospheric life, which means that effort to reduce it have a nearer-term benefit.

Participation in Natural Gas STAR cuts across all of the major industry sectors, including gas production, processing, transmission and distribution. As of 2005, the companies participating in Natural Gas STAR represent 56 percent of the natural gas industry in the U.S. Today, the program has over 110 partner companies and is endorsed by nearly 20 major industry trade associations. Since the Program began in 1993, Natural Gas STAR partners have eliminated over 400 billion cubic feet (Bcf) of methane emissions through the implementation of the Program's core Best Management Practices (BNMPs), as well other activities identified by partner companies. At the

² http://www.energystar.gov/index.cfm?c=about_ab_history

³ <http://www.epa.gov/gasstar/>

same time, these companies have saved over \$2.8 billion by keeping more gas in their systems for sale in the market.⁴

USDA Programs. In June 2003, the Secretary of Agriculture announced that, for the first time, the Department of Agriculture (USDA) would provide targeted incentives to encourage wider use of land management practices that remove carbon from the atmosphere or reduce emissions of greenhouse gases. USDA's initiatives encourage the increased use of biomass energy, crop and grazing land conservation actions, practices to reduce emissions from agriculture, and sustainable forest management. USDA is targeting greenhouse gases and carbon sequestration through the conservation programs it administers and set a target to reduce 44 million tons of CO₂ equivalent emissions by 2012. These incentives come in part from an increase in funding for conservation programs on private lands of \$17.1 billion over 10 years as authorized by the Farm Bill of 2002.

Since 2002, The Natural Resources Conservation Service (NRCS) delivered guidance to its offices nationwide to reward and recognize actions that provide greenhouse gas benefits within the Environmental Quality Incentives Program (EQIP) application ranking systems. Between 2004 and 2006, EQIP participants addressed soil erosion concerns on 4.9 million acres, irrigation water management resource concerns on 22.4 million acres, and wildlife habitat resource concerns on 2.3 million acres.

USDA and EPA are promoting the use of anaerobic digesters on farms to reduce odors and pathogens and methane emissions. Over the past two years, the number of digesters has more than doubled. For example, from 2003-2005, USDA helped to install 84 new digesters through rural development grants and another 11 digesters were funded under EQIP.

⁴ <http://www.epa.gov/gasstar/accomplish.htm>

As part of technical assistance efforts, NRCS developed three web-based energy tools to help farmers increase energy awareness in agriculture and identify where they can reduce their energy costs. The tools address: energy and cost savings associated with different tillage systems; nitrogen use efficiency; and energy savings associated with improved irrigation systems. Since the first energy awareness tool was released in December 2005, the three tools have had over 1.5 million hits.

The Farm Service Agency (FSA) is using the Conservation Reserve Program (CRP) to promote carbon sequestration. FSA modified the Environmental Benefits Index (EBI) used to score and rank offers to enroll land in the CRP to give more points for installing vegetative covers that sequester more carbon and issued a rule that allows the private sale of carbon credits for lands enrolled in the CRP.

FSA is targeting 500,000 acres of CRP continuous signup enrollment toward bottomland hardwood tree planting. These efforts have been slowed somewhat as Mississippi and Louisiana recover from hurricane Katrina.

Under the Conservation Security Program (CSP), NRCS is providing financial and technical assistance to promote conservation on working cropland, pasture, and rangeland. Outcomes of CSP contracts for 2004 and 2005, include: 4 million tons of additional carbon have been sequestered (14.6 million tons of CO₂ equivalents); 8.5 million acres enrolled with enhancements applied to increase soil quality; 2.7 million acres enrolled with grazing management enhancements applied that exceed quality criteria, and over 5 million acres enrolled with nutrient management enhancements applied that exceed quality criteria.

Climate Leaders. Climate Leaders is an EPA partnership that encourages individual companies to develop long-term, comprehensive climate change strategies. Partner companies

develop corporation-wide GHG inventory including all emission sources of the six major gases (CO₂, CH₄, N₂O, HFCs, PFCs, SF₆), set an aggressive corporate-wide GHG emissions reduction goal to be achieved over 5 to 10 years, and report inventory data annually and document progress toward their emissions reduction goal. Since its inception in 2002, Climate Leaders has grown to include nearly 100 corporations whose revenues add up to almost 10 percent of the United States' gross domestic product and whose emissions represent 8 percent of total U.S. greenhouse gas emissions. Five organizations have achieved their GHG reduction goals – Baxter International, General Motors Corporation, IBM Corporation, National Renewable Energy Laboratory and SC Johnson.⁵

Climate VISION. In February 2003, President Bush announced the formation of Climate VISION, a public-partnership program established to contribute to the president's emission intensity reduction goal. Fourteen major industrial sectors and the Business Roundtable have committed to work with four cabinet agencies (Departments of Energy, Transportation, and Agriculture, and the Environmental Protection Agency) to reduce greenhouse gas emissions in the next decade. Participating industries include electric utilities, petroleum refiners and natural gas producers, automobile, iron and steel, chemical and magnesium manufacturers, forest and paper producers, railroads, and the cement, mining, aluminum, lime, and semiconductor industries (See Attachments 6.1 and 6.2: Climate VISION Sectors). This initiative is modeled on highly successful partnerships such as EPA's 33/50 program from the early 1990s to reduce emissions of toxics.

⁵ <http://www.epa.gov/statep/abouthus.html>

Hydrogen Fuel Initiative. In his 2003 State of the Union Address, President Bush launched his Hydrogen Fuel Initiative. The goal of this initiative is to work in partnership with the private sector to accelerate the research and development required for a hydrogen economy. The President's Hydrogen Fuel Initiative and the FreedomCAR Partnership are providing nearly \$1.72 billion to develop hydrogen-powered fuel cells, hydrogen infrastructure technologies, and advanced automobile technologies. The President's initiative will enable the commercialization of fuel cell vehicles in the 2020 timeframe. Through this initiative, the cost of a fuel cell has already been cut in half, and the expected life of an automotive fuel cell has been doubled since 2003. I have driven several prototypes of such vehicles. Private sector interest and investment remains high.

Voluntary Greenhouse Gas Emissions Registry ("1605(b)"). In response to a February 2002 directive from President Bush, the Department of Energy has revised the Voluntary Greenhouse Gas Emissions Registry ("1605(b)") program guidelines to establish a more accurate and transparent national registry where businesses and institutions will be encouraged to submit comprehensive reports on their greenhouse gas emissions, sequestration and reductions. Under the revised program, utilities, industries and other large emitters of greenhouse gases can now demonstrate net, entity-wide reductions, based on emission intensity or other eligible measures, and be recognized for "registered reductions". Provisions encourage participation in the program by small emitters of greenhouse gases, such as farmers, forest owners, and small businesses. Small emitters can either report on their own or partner with a larger group to report greenhouse gas reduction benefits. The revised guidelines include new state-of-the-science guidance and tools, developed by USDA, for estimating emissions from agricultural, forestry, and conservation activities important for carbon sequestration efforts. The guidelines offer farmers and ranchers a new on-line tool called COMET-VR which provides a simple and reliable method for estimating

soil carbon sequestration. The technical guidelines for forests have recently been published as⁶ a series of detailed carbon stock default tables with guidance on applying the tables for inventory purposes, direct measurement protocols, and guidance on the use of models. Actions that farmers and landowners can consider reporting include using no-till agriculture, installing a waste digester, improving nutrient management, and managing forestland. The original program guidelines, issued in 1994 following enactment of the Energy Policy Act of 1992, provided reporters considerable flexibility to decide what they reported to DOE's Energy Information Administration (EIA). This flexibility was intended to encourage participation. Over 200 utilities and other entities, large and small, report to DOE under the original program guidelines. Since its inception, participants in the existing program have reported several billion tons of CO₂ (equivalent) emission reductions to EIA.

While these previous reports clearly demonstrate the commitment of participants to reducing emissions, the original program guidelines were revised to ensure that future reports provide a more accurate and comprehensive accounting of the entity-wide reductions achieved by participants. The new guidelines will govern reports submitted in 2007 and beyond.

While we do not yet have any data reported under the new guidelines, we do have 1605(b) data reported for 2004. For the 2004 reporting year, 226 U.S. companies and other organizations reported to the Energy Information Administration (EIA) that they had undertaken 2,154 projects to reduce or sequester greenhouse gases in 2004.

Carbon Sequestration. The carbon sequestration program has grown significantly under the current Administration from about \$24 million in 2001 to almost \$70 million in FY'06. With major

⁶ USDA FS GTR-NE343, "Methods for Calculating Forest Ecosystem & Harvested Carbon with Standard Estimates for Tree Types of the United States." USDA Forest Service, 2006.

industry cost-sharing for the total program very close to \$100 million. There are approximately 40 field validation tests of geologic sequestration underway or planned world wide on carbon sequestration. Notably, the majority of these are taking place in the U.S. (See Attachment 7.1: Carbon Sequestration Program Structure; Attachment 7.2: Sequestration Program Statistics FY'06; and Attachment 7.3: Regional Carbon Sequestration Partnerships Field Validation Tests).

Federal Energy Management Program (FEMP). Chartered in 1973, the Department of Energy's Federal Energy Management Program (FEMP) works to reduce the cost and environmental impact of the Federal government by advancing energy efficiency and water conservation, promoting the use of distributed and renewable energy, and improving utility management decisions at Federal sites. With FEMP's leadership, Federal agencies have achieved nearly a 30% reduction in British Thermal Units (BTU's) per square foot energy consumption at Federal facilities since 1985. The EPAct of 2005 established even more aggressive requirements for Federal agencies to further decrease BTU per square foot energy consumption at Federal facilities by over 2% per year for 10 years.

DOE's Super Energy Saving's Performance Contracts are among the key tools that Agencies use to reduce energy consumption. These contracts were reauthorized in the EPAct of 2005, and provide a cost-effective way for agencies to improve energy efficiency of their buildings and facilities through private sector financing and without requiring up front appropriated funding normally necessary for such projects. These contracts provide funding to enable improved energy efficiency and renewable energy utilization at the thousands of Federal buildings across the country. Agencies repay private sector investments plus interest through guaranteed energy cost savings.

Federal agencies are also leading by example in the area of renewable energy use. The Federal Government is currently the largest consumer on non-hydro renewable energy in the

country. Federal facilities consume over 2500 Giga-watt hours of non-hydro renewable energy per year. The Energy Policy Act of 2005 established new a requirement that the Federal Government use at least 3 percent renewable energy in fiscal years 2007 through 2009, not less than 5 percent in fiscal years 2010 through 2012 and not less than 7.5 percent in fiscal year 2013 and each fiscal year thereafter. Federal agencies are currently exceeding the 2012 requirements of the act by purchasing more than 5% of their energy from renewable resources.

FEMP is also guiding the Government's efforts to lead by example in greenhouse gas reductions. Federal facilities are on track to meet a goal of reducing the greenhouse gas emissions associated with Federal facilities at least 30% by 2010 based on a 1990 baseline. This goal was established under Executive Order 13123, "Greening the Government through Efficient Energy Management".

THE GLOBAL EFFORT

Of course, climate change is not just a concern domestically, it is a global issue. The United States remains a strong leader in the global effort to address climate change. It is important to recognize that government funding is only small part of the success equation globally. The International Energy Agency estimates that \$17 trillion dollars will be invested by 2030⁷ in energy and infrastructure to meet projected demand growth. The questions in front of us are: What is the nature of the technology being installed? What will investing in these technologies do in terms of advancing and enhancing our energy security, clean development, air pollution control and greenhouse gas mitigation?

Under President Bush's leadership, the United States has brought together key nations to tackle jointly some tough energy challenges we face. These collaborations mirror the main strategic

⁷ International Energy Agency. 2005 World Energy Outlook <http://www.worldenergyoutlook.org/>

thrusters of our domestic technology research programs, and they address a number of complementary energy concerns, such as energy security, climate change, and environmental protection (See Attachments 8, 1-8.2: Innovative International Technology Partnerships).

The international climate technology partnership provisions found in Title XVI of the EPAct of 2005 provide us with an important legislative foundation for sustaining and building on these partnerships. The comprehensive domestic technology provisions of EPAct are also critical to the success of the international effort. The importance of this inter-relationship has been recognized for some time. For example, Senator Byrd in the mid 1990's initiated programs to export U.S. technologies which were proposed 2002 in the Clean Energy Technology Export initiative (CETE). Many aspects of the CETE initiative are reflected in the EPAct of 2005 and are being carried out through Administration initiatives.

Developing countries such as India and China need enormous amounts of new energy to continue their economic development and to provide jobs and improved living standards for their populations. The economic, social and environmental benefits of building clean and efficient generation capacity, as well as delivering and using electricity more efficiently, are huge.

Asia-Pacific Partnership on Clean Development and Climate. Last summer, the Administration introduced one of our most consequential multilateral initiatives, the Asia-Pacific Partnership for Clean Development and Climate. The six nations in this partnership – Australia, China, India, Japan, South Korea, and the United States – account for about half of the world's economy, energy use, and greenhouse gas emissions (See Attachment 9: Asia-Pacific Partnership Significance). In announcing the Asia-Pacific Partnership on July 27, 2005, President Bush said, "This new results-oriented partnership will allow our nations to develop and accelerate deployment of cleaner, more efficient energy technologies to meet national pollution reduction, energy security, and climate

change concerns in ways that reduce poverty and promote economic development" (See Attachment 10: President's Statement: July 27, 2005).

The Asia-Pacific Partnership and our other international engagements on climate change center on five key ideas, all of which extend from and build on our own experience here in the United States. First, a successful international response to climate change requires developing country participation, which includes both near-term efforts to slow the growth in emissions and longer-term efforts to build capacity for future cooperative actions. Absent the participation of all major emitters, including developing countries, the UN Framework Convention's ultimate goal of stabilizing GHG concentrations will remain elusive.

Second, we will make more progress on this issue over time if we recognize that climate change goals fall within a broader development agenda – one that promotes economic growth, reduces poverty, provides access to modern sanitation and clean water, enhances agricultural productivity, provides energy security, reduces pollution, and mitigates greenhouse gas emissions. Countries do not look at individual development goals in a vacuum, and approaches that effectively integrate both near- and longer-term goals will yield more benefits over time.

Third, technology is the glue that can bind these development objectives together. By promoting not just the development but also the wide spread commercialization and use of cleaner and more efficient technologies, we can meet a range of diverse development and climate objectives simultaneously.

Fourth, we need to pursue our international efforts in a spirit of collaboration, not coercion, and with a true sense of partnership. This is especially true in our relations with developing countries, which have an imperative to grow their economies and provide for the welfare of their citizens. Experience has shown these countries to be quite skeptical of climate mitigation approaches that they think will divert them from these fundamental goals. It is also true that many

of the largest greenhouse gas emitters are also among our most significant trading partners. They have rapidly advancing – in many cases, world class – industries and considerable technical expertise. We view countries like China and India as responsible partners in our efforts.

Finally, we need to engage the private sector to be successful. While the right kind of government-to-government collaboration can pave the way for great progress, we will need to harness the ingenuity, resources and vision of the private sector in developing and deploying technology.

The Partnership's Charter, which I have attached to my testimony, identifies a broad range of near and long-term technologies and practices that are designed to improve energy security, reduce pollution, and address the long-term challenge of climate change. The Partnership focuses on voluntary practical measures to create new investment opportunities, build local capacity, and remove barriers to the introduction of cleaner, more efficient technologies. It is important to build on mutual interests and provide incentives to tackle shared global challenges such as climate change effectively (See Attachment 11: Asia-Pacific Partnership Focus).

We are united with our partners in recognizing that the ingenuity and energy of the private sector is crucial to our success in addressing these issues over time. This effort cannot succeed without strong private sector involvement. The Departments of State, Energy, Commerce, the Environmental Protection Agency, and other agencies and financing institutions, such as the Export-Import Bank and Asian Development Bank, are actively discussing ways of ensuring that the private sector is engaged in a meaningful way in the Partnership at every stage of its work.

This past January, I was privileged to join Energy Secretary Sam Bodman and Under Secretary of State Paula Dobriansky at the first Ministerial meeting of the Partnership in Sydney, Australia. The meeting was hosted by Australian Prime Minister John Howard and chaired by Australian Foreign Minister Alexander Downer. In addition to involving unusually high-ranking

government official representation, the meeting also included a substantive dialogue with leading CEOs and heads of industrial organizations from each country representing some of the most significant, energy-intensive and emitting sectors. The Ministerial established a Policy and Implementation Committee and its first set of Task Forces covering actions in eight areas: Cleaner Fossil Energy, Renewable Energy and Distributed Generation, Power Generation and Transmission, Steel, Aluminum, Cement, Coal Mining, and Buildings and Appliances.

Each Task Force has a government chair and co-chair (See Attachment 12). Initial details about the objectives and work plans for each task force are outlined in the accompanying charts (See Attachments 13.1-13.8). Each Task Force will consist of two senior government officials and two private sector leaders from each country to enable a relatively manageable planning and implementation dialogue of about 24 people per Task Force. The United States is chairing the Policy and Implementation Committee and chairing or co-chairing three of the Task Forces. The United States Task Force members include participants from government agencies, major companies, trade associations, and non-profit organizations.

The Task Forces currently vary in their level of organization and planning. The aluminum sector, for example, has already adopted a memorandum of understanding as to how they intend to proceed. This is not surprising, as this sector is already well-organized internationally and involves large multi-national companies. On the other hand, sectors such as cement and power generation are composed predominantly of domestic companies, that infrequently, if ever, have had reason to get together and share management strategies, relevant sector goals, best practices, technologies and financing arrangements. For many, the Asia-Pacific Partnership will afford the first opportunity for such hands-on, senior level exchanges.

The Power Generation and Transmission Task Force is demonstrating the "can-do" approach typical of the APP Task Forces. Already over twenty US utilities have agreed to engage the APP

and are standing ready to participate with the partnering nations. The American Electric Power Corporation (AEP) has already hosted representatives from the Indian National Thermal Power Corporation, the largest power utility in India where the high level India officials and engineers were shown opportunities for efficiency and environmental improvements. As a follow-up, this September, AEP and other US companies are planning to host meetings and plant visits to share "best-practices" on techniques and processes to operate power facilities more efficiently and to control emissions. Both government and industry in China and India have shown strong interest in the return visit and plan to send engineers to participate. Consideration is also being given to have US power engineers go to India and perhaps China to help do "walkdowns" of the facilities where they can help provides "hands-on" assistance as a follow-up activity.

In April of this year, the United States hosted the first Task Force working meetings in Berkeley, California. Approximately 300 senior representatives from the public and private sectors attended the nearly week-long event. The eight Task Forces met for two full days and identified actions covering several dozen discrete activities. All of the Task Forces indicated they will complete their initial action plans by August 31, at which time they will be submitted to the Policy and Implementation Committee for review and approval.

Let me outline a few of my own personal thoughts concerning the kinds of deliverables the Task Forces will explore. A principal, operational objective of the Partnership is to identify profitable technology investment opportunities and outcomes in each partner country. In addition to the more traditional discussion of "demonstration projects" related to emerging technologies in each sector, we are placing a strong emphasis on identifying opportunities for near-term outcomes that can be mass-produced using tried and true technologies and methods and investment strategies.

For example, methane capture from coal mining is a well-established and highly profitable practice in the United States that nets significant benefits in terms of worker safety, harmful

pollution reduction, and mitigation of a greenhouse gas. Under the auspices of the Methane to Markets Partnership, which I will discuss in the next section, Caterpillar and Shanxi Jincheng Anthracite Coal Mining Group Co., Ltd. in China have signed a \$38 million contract to provide 60 methane-gas-powered generator sets to produce power at a Chinese coal mine. Once complete, this project is expected to be the largest of its kind in the world. Methane gas is found in coal seams which is released into the mine or atmosphere during mining operations. This methane can be very hazardous and can contribute to fires and explosion if not properly vented. Methane is also a greenhouse gas more than 20 times more potent than CO₂. On the bright side, methane is also used as a very clean burning fuel. Caterpillar will be capturing this methane gas instead of venting it to the atmosphere and burning it providing 120 megawatts of electricity to Jincheng City. It is estimated that the project will reduce GHGs by 4.5 million tons of CO₂ equivalent over its 20-year lifetime. This is also an example of the type initiative that the APP is trying to stimulate. The potential number of such projects in several of the other partner countries is quite high.

Our partner countries also have a strong interest in our substantial experience and success in improving the efficiency and capacity of our power generation. For example, in March 2006, China announced a commitment to improve its energy intensity by 20 percent and cut its sulfur-dioxide emissions by 10 percent by 2010 from 2005 levels.⁸ To reach this goal, policies are being drafted that may include establishing an index to evaluate how local governments have cut energy consumption. In late 2005, the Chinese State Council, which is the equivalent of the President's Cabinet, approved a directive for the State Environmental Protection Agency (SEPA) to use an emission trading program to control SO₂ from the power sector. At the end of May 2006, SEPA and

⁸ "China Orders Coal-Fired Power Plants to Cut Emissions," *People's Daily Online*.

http://english.people.com.cn/200605/31/eng20060531_270104.html

the Ministry of Finance reached an agreement with over 20 provinces and the six largest power companies representing approximately 50 percent of generating capacity to institute an SO₂ cap and trade program starting in the year 2009. The agreement also included the approach to be used to allocate the tradable allowances to each power plant. These remarkably ambitious objectives create a strong market force for new investment in technologies and services. The partnership will work within the context of such nationally defined outcomes to share experiences and identify needed methods, technologies, and financial arrangements to assure success. Out of such discussions should emerge a fairly concrete list of information, policy, economic, and regulatory barriers to investment and corresponding actions to address such barriers.

Another opportunity is the prospect of a better, shared inventory of each country's capabilities and commitments in key sectors. For example, Japan has a highly-evolved partnership program of greenhouse gas mitigation goal-setting and implementation involving each of its major emitting sectors. President Bush's Climate VISION and Climate Leaders programs share common elements with the Japanese program.⁹ Closer alignment and amplification of these approaches, while ensuring their relevance to each country's national circumstances, will be very valuable.

Another area of importance is the potential for further development of capacity to accurately monitor and measure performance across a number of metrics and sectors. While at different points on the continuum, each of the six countries is working aggressively to improve its ability to track improvements in efficiency, air quality and greenhouse gas emissions. Such capacity is essential to ensuring integrity, consistency, and cost-effectiveness of results.

Finally, we are working to ensure the focused and active engagement of public and private financing institutions. The operational success of this effort should be measured not by how much

⁹ <http://www.climatevision.gov/>

governments and their taxpayers spend on the effort, but on how much new private sector investment and financing can be unleashed and accelerated to achieve partnership security and environmental performance goals. The U.S. Department of Commerce and our Export-Import Bank are already working on business plans and trade promotion exchanges focused on Partnership priorities. The head of the Asian Development Bank participated in the Ministerial launch of the Partnership in Australia.

The President's FY07 budget calls for \$52 million to support the work of the Partnership. The request is divided among the Departments of State, Energy and Commerce, and the Environmental Protection Agency. Other agencies, such as the Departments of Transportation and Agriculture, will also be participating. The Partnership is a team effort and requires a team budget.

Methane to Markets. The Methane to Markets Partnership is another highly practical major element in the series of international technology partnerships advanced by the Bush Administration. Launched in November 2004, the Methane to Markets Partnership focuses on advancing cost-effective, near-term methane recovery and use as a clean energy source from coal beds, natural gas facilities, landfills, and agricultural waste management systems. The Partnership includes 18 countries: Argentina, Australia, Brazil, Canada, China, Colombia, Ecuador, Germany, India, Italy, Japan, Mexico, Nigeria, Republic of Korea, Russia, Ukraine, United Kingdom and United States. The European Commission has announced it is joining. The Partnership will reduce global methane emissions to enhance economic growth, promote energy security, improve the environment, and reduce greenhouse gas emissions. Other benefits include improving mine safety, reducing waste, and improving local air quality. The goals of Methane to Markets will be accomplished through collaboration between developed countries, developing countries, and countries with economies in transition — together with strong participation from the private sector. Methane to Markets has the

potential to deliver by 2015 annual reductions in methane emissions of up to 50 million metric tons of carbon equivalent (MMTCE) or recovery of 500 billion cubic feet (Bcf) of natural gas. These measurable results, if achieved, could lead to stabilized or even declining levels of global atmospheric concentrations of methane relatively soon, similar to what we already achieved in the U.S. To give a sense of scale, this would be equivalent to: removing 33 million cars from the roadways for one year, growing 49 million acres of trees for one year¹⁰, or eliminating emissions from fifty 500 megawatt coal-fired power plants, or providing enough energy to heat approximately 7.2 million households for one year. The Partnership operates in four sectors: oil and gas, coal mining, landfill, and agriculture, initially focusing on livestock waste.

Renewable Energy and Energy Efficiency Partnership. The United States is also one of several countries that participates in the Renewable Energy and Energy Efficiency Partnership (REEEP). REEEP was initiated by the United Kingdom as a WSSD partnership to assist market development of renewable and energy efficiency systems. The United States also actively participated in the Renewables 2004 conference sponsored by the German Government in June 2004 and submitted five action items to provide specific technology plans and cost targets for renewable energy technologies using solar, biomass, wind, and geothermal resources.

G-8. Building on the earlier targeted efforts in the context of the G-8, the United States worked with the United Kingdom and other G-8 partners to launch the 2005 Gleneagles Plan of Action, a landmark document containing over fifty practical, results-oriented actions to address the linked

¹⁰ USDA FS GTR-NE343, "Methods for Calculating Forest Ecosystem & Harvested Carbon with Standard Estimates for Tree Types of the United States." USDA Forest Service, 2006.

issues of development, energy security, energy access, climate change, and air pollution. G8 partners are engaged in ongoing ministerial-level dialogue with other major energy economies to see that the commitments in Gleneagles are carried through in an effective manner. ¹¹ G-8 members agreed that "climate change is a serious and long-term challenge that has the potential to affect every part of the globe. We know that increased need and use of energy from fossil fuels, and other human activities, contribute in large part to increases in greenhouse gases associated with the warming of our Earth's surface. While uncertainties remain in our understanding of climate science, we know enough to act now to put ourselves on a path to slow and, as the science justifies, stop and then reverse the growth of greenhouse gases."¹² The Gleneagles Plan of Action helped launch of the Global Bioenergy Partnership (GBEP), an Italian initiative to support wider, cost effective, biomass and biofuels deployment, particularly in developing countries.

The U.S. has a significant leadership role in organizing a workshop at the G-8's request on short term opportunities for Carbon Capture and Storage in the fossil fuel sector. The workshop will be held in San Francisco during August and is being organized by the International Energy Agency and Carbon Sequestration Leadership Forum (CSLF) (discussed in more detail below).

The G-8 leaders carried their dialogue forward during last week's G-8 meetings in St. Petersburg with a particular focus on the energy security perspective including clean energy and sustainable development.

¹¹ http://www.fco.gov.uk/Files/ktfile/PostG8_Gleneagles_CCCChangePlanofAction.pdf

¹² http://www.fco.gov.uk/Files/ktfile/PostG8_Gleneagles_CCCChapeau.pdf

2006 U.S.-European Summit.¹³ Last month in Vienna, the President and European Union leaders they agreed to cooperate on a range of activities to promote energy security and advance cleaner and more efficient energy technologies and practices to help cut air pollution and reduce greenhouse gases. This autumn, they will initiate a U.S.-EU High Level Dialogue on Climate Change, Clean Energy and Sustainable Development to build on existing bilateral and multilateral initiatives and further advance implementation of the G-8 Gleneagles Plan of Action.

International Partnership for the Hydrogen Economy (IPHE). Recognizing the common interest in hydrogen research that many countries share, the United States called for an international hydrogen partnership in April 2003. In November 2003, representatives from 16 governments gathered in Washington, D.C. to launch IPHE.¹⁴ IPHE provides a vehicle to organize, co-ordinate, and leverage multinational hydrogen research programs that advance the transition to a global hydrogen economy. It reviews the progress of collaborative projects, identifies promising directions for research, and provides technical assessments for policy decisions. IPHE also will develop common recommendations for internationally-recognized standards and safety protocols to speed market penetration of hydrogen technologies.

¹³ <http://www.whitehouse.gov/news/releases/2006/06/20060621-2.html>

¹⁴ Founding IPHE member governments include the United States, Australia, Brazil, Canada, China, European Commission, France, Germany, Iceland, India, Italy, Japan, Norway, Republic of Korea, Russia, and the United Kingdom. In January 2005, New Zealand became the 17th member.

Carbon Sequestration Leadership Forum (CSLF). CSLF is a U.S. initiative that was established formally at a ministerial meeting held in Washington, DC in June 2003.¹⁵ CSLF is a multilateral initiative that provides a framework for international collaboration on sequestration technologies. The Forum's main focus is assisting the development and deployment of technologies to separate, capture, transport, and store carbon dioxide safely over the long term, making carbon sequestration technologies broadly available internationally, and addressing wider issues, such as regulation and policy, relating to carbon capture and storage. In addition to these activities, CSLF members are invited to participate in the FutureGen clean coal project. There are 22 members of the CSLF, including the United States, European Commission, China, and India. Seventeen international carbon capture and storage projects, including four co-sponsored by India and China, are currently underway under the direction of CSLF member countries.

Generation IV International Forum (GIF). In 2002, nine countries and Euratom joined together with the United States to charter the Generation IV International Forum (GIF), a multilateral collaboration to fulfill the objective of the Generation IV Nuclear Energy Systems Initiative.¹⁶ GIF's goal is to develop a fourth generation of advanced, economical, safe, and proliferation-resistant nuclear systems that can be adopted commercially no later than 2030. A technology

¹⁵ CSLF member governments include the United States, Australia, Brazil, Canada, China, Colombia, Denmark, European Commission, France, Germany, Greece, India, Italy, Japan, Republic of Korea, Mexico, Netherlands, Norway, Russia, Saudi Arabia, South Africa, and the United Kingdom.

¹⁶ GIF member countries include the United States, Argentina, Brazil, Canada, France, Japan, Republic of Korea, South Africa, Switzerland, and the United Kingdom.

roadmap developed by the GIF and the Department of Energy's Nuclear Energy Research Advisory Committee in 2003 identified six technologies as candidates for future designs. Based on the roadmap, GIF countries are jointly preparing a collaborative research program to develop and demonstrate the projects.

Future Gen. In February 2003, President Bush announced that the United States would sponsor, with international and private-sector partners, the Future Gen Initiative, a \$1 billion, 10-year project to build the world's first coal-based, zero-emissions electricity and hydrogen power plant. The Future Gen is designed to dramatically reduce air pollution and capture and store greenhouse gas emissions through carbon sequestration. India and South Korea have both recently joined Future Gen Initiative on the government side and will each be contributing \$10 million. The U.S. has also invited other countries to join in to make this a truly international effort towards a global technology solution to climate change concerns. An industry consortium has been formed, and site selection is under way. Member companies¹⁷ have global operations serving customers in Asia, Australia, Canada, Continental Europe, the People's Republic of China, South Africa, South America, and the United States. These member companies are committing \$250 million.

¹⁷ USG, South Korea, India, American Electric Power – US, Anglo Coal – UK, BHP Billiton – Australia, China Huaneng Group – PRC, Consol Energy, Inc – US, Foundation Coal Corp – US, Kennecott Energy Co. - (Parent company is Rio Tinto of Australia), Peabody Energy – US, Southern Company – US, PPL - US (Used to be Pennsylvania Power and Light)

International Thermonuclear Experimental Reactor (ITER). In January 2003, President Bush announced that the U.S. was joining the negotiations for the construction and operation of the international fusion experiment, International Thermonuclear Experimental Reactor (ITER). The Bush Administration considers fusion a key element in U.S. long-term energy plans because fusion offers the potential for abundant, safe and environmentally benign energy. ITER will allow scientists to explore the physics of a burning plasma at energy densities close to that of a commercial power plant, the critical next step in producing and delivering commercially available electricity from fusion to the grid. The EU location in Cadarache, France has been selected as the ITER site, and a Director General nominee from Japan has been chosen. ITER member countries include the United States, China, European Union, India, Japan, Russia, and the Republic of Korea. Meetings held between September 2005 and February 2006 resulted in the completion of major milestones for the ITER project. Member nations are now presenting the final initiated text to their respective governments for approval.

World Summit on Sustainable Development (WSSD). At the World Summit on Sustainable Development (WSSD) in Johannesburg in 2002, the United States launched a Clean Energy Initiative (CEI). CEI consists of four market-oriented, performance-based partnerships: Global Village Energy Partnership, led by the U.S. Agency for International Development; Partnership for Clean Indoor Air and Partnership for Clean Fuels and Vehicles, led by EPA; and Efficient Energy for Sustainable Development, led by DOE. The mission of CEI is to bring together governments, international organizations, industry and civil society in partnerships to alleviate poverty and spur economic growth in the developing world by expanding access to and modernizing energy services.

Group on Earth Observations.¹⁸ On July 31, 2003, the United States hosted 33 nations, including many developing nations, at the inaugural Earth Observation Summit (EOS), out of which came a commitment to establish an intergovernmental, comprehensive, coordinated, and sustained Earth observation system. The climate applications of the data collected by the system include the use of the data to create better climate models, to improve our knowledge of the behavior of carbon dioxide and aerosols in the atmosphere, and to develop strategies for carbon sequestration. The United States was instrumental in drafting a ten-year implementation plan for a Global Earth Observation System of Systems, which was approved by 55 nations and the European Commission at the 3rd EOS summit in Brussels in February 2005. The United States also released its contribution through the Strategic Plan for the U.S. Integrated Earth Observing System in April 2005.¹⁹ The plan will help coordinate a wide range of environmental monitoring platforms, resources, and networks.

Bilateral Activities. Since 2001, the United States has established 15 climate partnerships with key countries and regional organizations that, together with the United States, account for almost 80 percent of global greenhouse gas emissions.²⁰ These partnerships encompass numerous individual activities. Joint projects have been initiated in areas such as climate change research and science, climate observation systems, clean and advanced energy technologies, carbon capture, storage and

¹⁸ <http://earthobservations.org/>

¹⁹ http://iwgeo.ssc.nasa.gov/docs/EOCStrategic_Plan.pdf

²⁰ Partners include Australia, Brazil, Canada, China, Central America (Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Panama), European Union, Germany, India, Italy, Japan, Mexico, New Zealand, Republic of Korea, Russian Federation, and South Africa.

sequestration, and policy approaches to reducing greenhouse gas emissions (See Attachment 14: U.S. Climate Change Bilaterals). Most recently, President Bush and Prime Minister Harper of Canada agreed to establish a high-level dialogue to discuss the environment, climate change, air quality and energy issues.

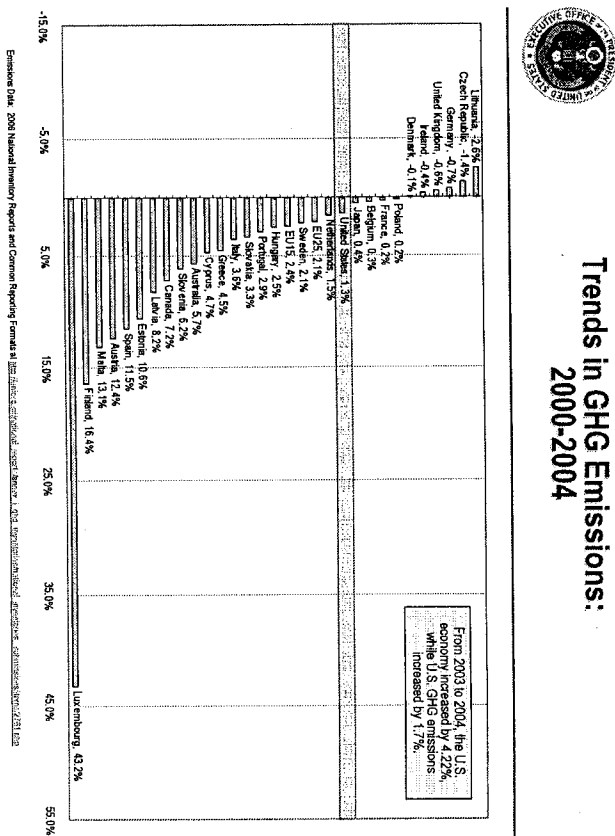
MARKET DEVELOPMENT FOR COMMERCIALIZATION OF NEW TECHNOLOGIES

One of the biggest barriers to economic progress in developing countries is lack of access to affordable, modern energy services, such as electricity. Such services are instrumental to economic growth, social development, and alleviation of poverty, and their availability can amplify the impact of investments in public health, education, sanitation, clean water, agriculture, and others. Nations that develop strong, market-based institutions and the rule of law will be in the best position to make the sustained investments necessary to provide clean energy and adapt to climate change over the long term.

Therefore, an important objective of U.S. participation in many international collaborations is to mobilize private sector investment by supporting economic reforms, institutional capacity in the energy sector to strengthen markets, strengthen the rule of law, and promote innovative financing that reduces risks and transaction costs. These efforts are aimed at developing new policies and business models to create self-sustaining markets for financing energy efficiency, renewables, and infrastructure projects.

President Bush has demonstrated his commitment to opening markets and knocking down trade barriers to create new opportunities for U.S. businesses, workers and farmers. The President's actions to advance free and fair trade have contributed to economic growth at home and increased prosperity and freedom around the world.

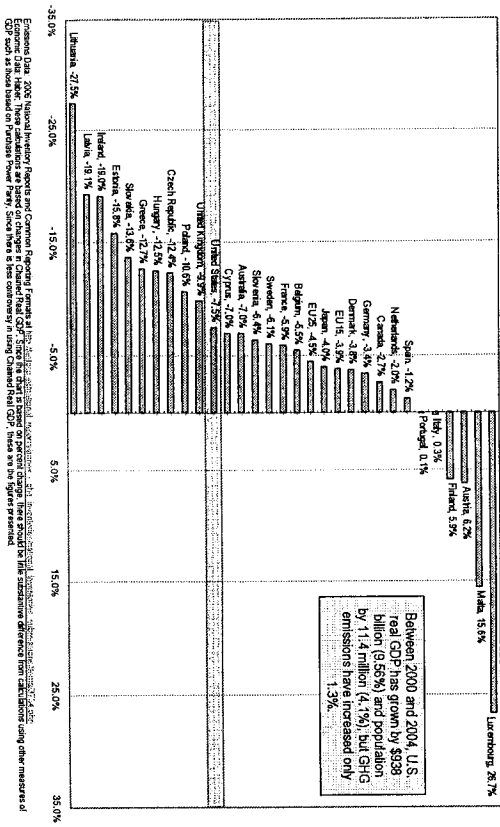
I thank you for the opportunity to testify. I look forward to responding to any questions you may have.





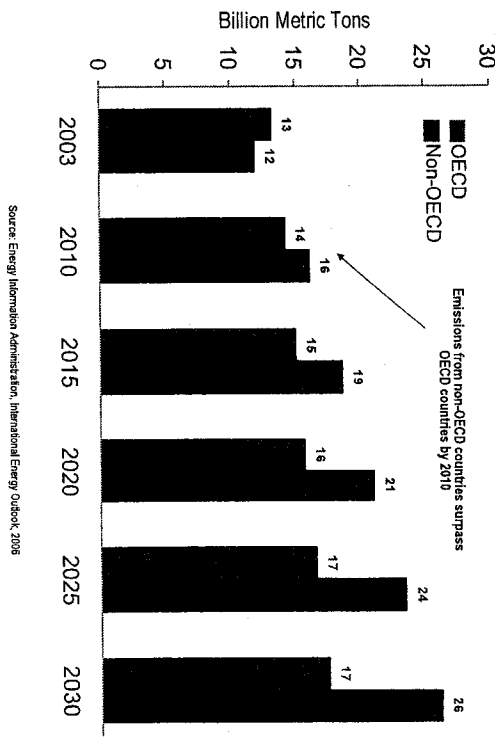
Trends in GHG Emissions Intensity: 2000-2004

ATTACHMENT 2



World Carbon Dioxide Emissions by Region: 2003-2030

ATTACHMENT 3

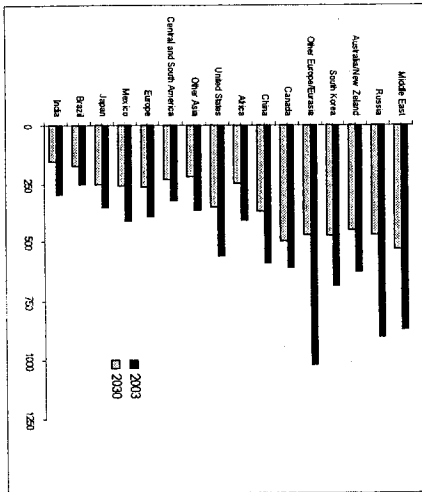




Carbon Dioxide Intensity Improvement Projections by Selected Countries and Regions

(Metric Tons per Million 2000 U.S. Dollars of Gross Domestic Product)

ATTACHMENT 4

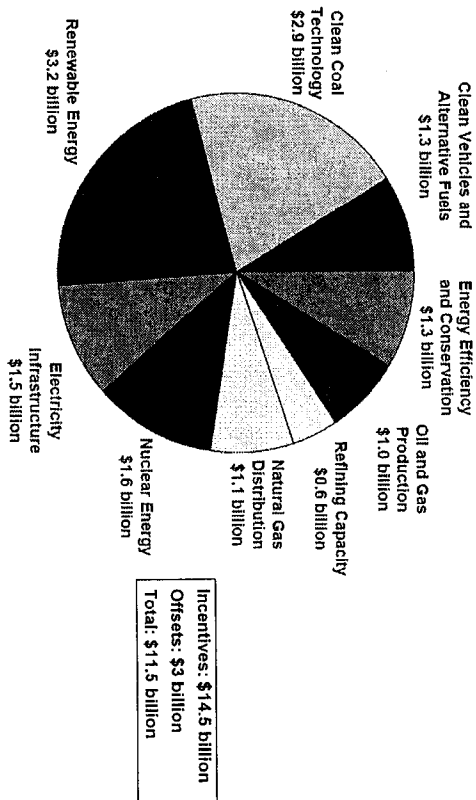


Source: International Energy Outlook 2006, Energy Information Administration, Department of Energy



Energy Bill Tax Incentives







ATTACHMENT 5





ATTACHMENT 6.1










Climate VISION Sectors

	Aluminum Achieved goal of an additional direct carbon intensity reduction of 25% since 2000; represents 98% of primary aluminum production. By 2012, reduce the GHG emissions intensity of operations by 18% relative to 2002 levels.
	Railroads By 2012, reduce overall GHG intensity by 18% relative to 1990 levels; represents 90% of U.S. chemical industry production.
	Chemical Manufacturing By 2012, reduce the forest products industry's greenhouse gas intensity by 12% relative to 2000; represents over 80% of U.S. paper, wood and forest products.
	Forest Products By 2010, eliminate sulfur hexafluoride emissions; represents 80% of the global magnesium industry.
	Magnesium Improve energy efficiency of refining operations by 10% over 2002 levels.
	Oil and Gas



ATTACHMENT 6.2

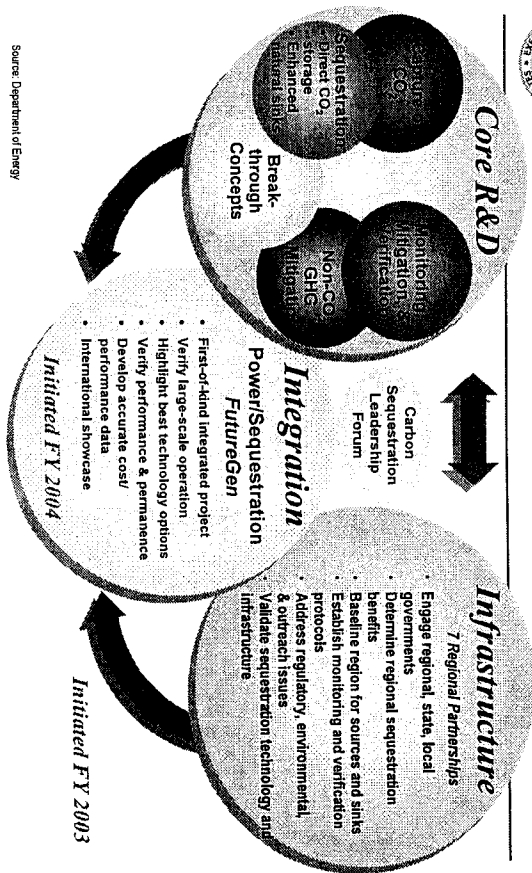
Climate VISION Sectors

	Semiconductors By 2010, cut perfluorocompound emissions by 10% from 1995 levels; responsible for more than 85 percent of U.S. semiconductor production. By 2012, achieve a 10% reduction in GHG emissions from manufacturing relative to 2002 levels.
	Automobile Manufacturers By 2020, reduce carbon dioxide (CO ₂) emissions per ton of product by 10% relative to a 1990 baseline.
	Cement By 2012, reduce the power sector's carbon intensity by the equivalent of 3-5 percent by 2012; represents 100% of the power generators in the United States.
	Electric Power By 2012, achieve a 10% increase in sector-wide average energy efficiency relative to 1998; represents ~ 75% of U.S. and North American steel capacity.
	Iron and Steel Obtain sector-wide engagement in voluntary programs to reduce GHG emissions.
	Mining Achieve 100% participation of BRT member companies in programs fostering enhanced voluntary action on GHG emissions.
	Business Roundtable By 2012, reduce GHG emissions from fuel combustion by 4.2% relative to 2000; represents 80% of soda ash, 100% of borates, and 60% of sodium silicate manufacturing.
	Minerals By 2012, reduce greenhouse gas emissions from fuel combustion per ton of product by 8% relative to 2002; represents ~ 95% of U.S. commercial lime production.
	Lime



Carbon Sequestration Program Structure

ATTACHMENT 7.1

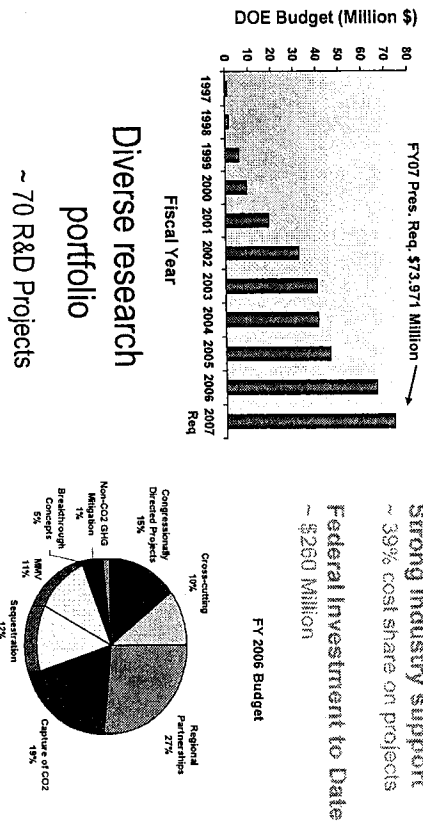


Source: Department of Energy



Sequestration Program Statistics FY'06

ATTACHMENT 7.2

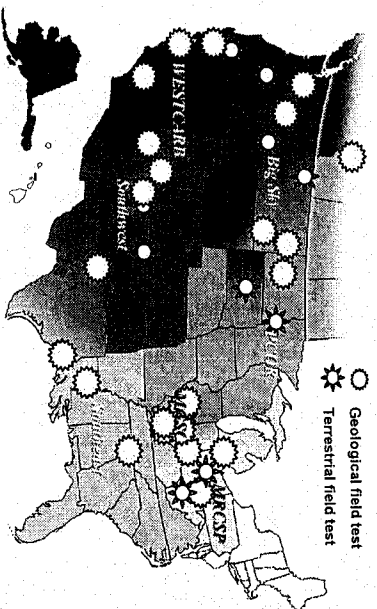


Source: Department of Energy



Regional Carbon Sequestration Partnerships Field Validation Tests

ATTACHMENT 7.1



Source: Department of Energy



Innovative International Technology Partnerships

ATTACHMENT 8.1



- Asia-Pacific Partnership on Clean Development and Climate — 6 member countries committed to develop and accelerate deployment of cleaner, more efficient energy technologies to meet national pollution reduction, energy security, and climate change concerns in ways that reduce poverty and promote economic development.
- Methane to Markets Partnership — 18 members: Recovery and use of methane from landfills, mines, agriculture, and natural gas production systems. Aims to capture 50 million metric tons CO₂ equivalent by 2015.
- G8 — Implementing the 2005 Gleneagles Plan of Action, a landmark document containing over fifty practical, results-oriented actions to address the linked issues of development, energy security, energy access, climate change, and air pollution. G8 partners are engaged in ongoing ministerial-level dialogue with other major energy economies to see that the commitments in Gleneagles are carried through in an effective manner. The Gleneagles Plan of Action has also led to the recent launch of the
- Global Bioenergy Partnership (GBEP), an Italian initiative to support wider, cost effective, biomass and biofuels deployment, particularly in developing countries.
- Global Nuclear Energy Partnership — Seeks to develop worldwide consensus on enabling expanded use of economical, carbon-free nuclear energy to meet growing electricity demand, using a nuclear fuel cycle that enhances energy security, while promoting non-proliferation.



ATTACHMENT 3.3.2

Innovative International Technology Partnerships

- International Partnership for the Hydrogen Economy (I-PHE) – 17 members: Organizes, coordinates, and leverages hydrogen RD&D programs.
- Carbon Sequestration Leadership Forum (CSLF) – 22 members: Focused on CO₂ capture & storage technologies.
- Generation IV International Forum (GIF) – 11 members: Devoted to R&D of next generation of nuclear systems.
- ITER – 7 members: Project to demonstrate the scientific and technological feasibility of fusion energy.
- Group on Earth Observations – 64 member countries, the European Commission, and more than 40 participating organizations: Design and implementation of a new Global Earth Observation System of Systems (GEOSS).
- Renewable Energy and Energy Efficiency Partnership (REEEP) – 17 countries working to enhance the delivery of clean and secure energy through the use of renewable resources and energy efficiency programs in the developed and developing world.



Asia-Pacific Partnership on Clean Development and Climate

Significance



Six Asia-Pacific Partners in 2003 accounted for:

- 64.7% of World GDP (MER)
- 49.8% of World GDP (PPP)
- 45.2% of World Population
- 51.0% of World Total Primary Energy Consumption
 - 63.6% of World Coal Consumption
 - 45.6% of World Petroleum Consumption
 - 55.6% of World Net Conventional Thermal Electricity Generation
 - 49.3% of World Total Net Electricity Generation
 - 30.1% of World Dry Natural Gas Consumption
- 49.4% of World CO₂ Emissions from the Fossil Fuel Consumption and Flaring
- 64.5% of World Coal Production

Source: Energy Information Administration, *International Energy Annual 2003*



Asia-Pacific Partnership on Clean Development and Climate

President's Statement: July 27, 2005



- The United States has joined with Australia, China, India, Japan, and South Korea to create a new Asia-Pacific partnership on clean development, energy security, and climate change.
- This new results-oriented partnership will allow our nations to develop and accelerate deployment of cleaner, more efficient energy technologies to meet national pollution reduction, energy security, and climate change concerns in ways that reduce poverty and promote economic development.
- The six Asia-Pacific partners will build on our strong history of common approaches and demonstrated cooperation on clean energy technologies.
- I have directed Secretary of State Condoleezza Rice and Secretary of Energy Sam Bodman to meet with their counterparts this fall to carry forward our new partnership and provide direction for our joint work.



Asia-Pacific Partnership on Clean Development and Climate

Focus



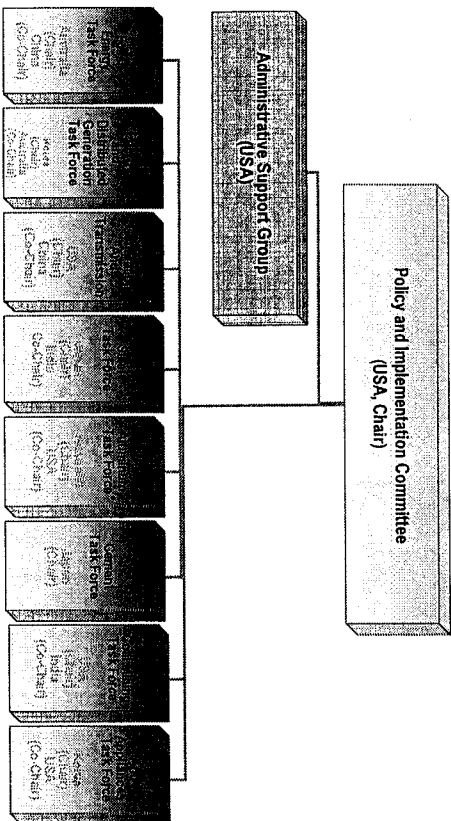
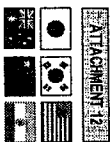
- Voluntary practical measures taken by these six countries in the Asia-Pacific region to create new investment opportunities, build local capacity, and remove barriers to the introduction of clean, more efficient technologies.
- Help each country meet nationally designed strategies for improving energy security, reducing pollution, and addressing the long-term challenge of climate change.
- Promote the development and deployment of existing and emerging cleaner, more efficient technologies and practices that will achieve practical results in areas such as:

> Energy Efficiency	> Methane Capture/Use	> Rural/Village Energy Systems
> Clean Coal	> Civilian Nuclear Power	> Advanced Transportation
> Natural Gas	> Geothermal	> Hydro/Wind/Solar Power
> Bioenergy	> Agriculture/Forestry	> Building/Home Construction/Operation



Asia-Pacific Partnership on Clean Development and Climate

Organizational Chart



Asia-Pacific Partnership on Clean Development and Climate

Clean Fossil Energy Task Force Objectives



- Build on the range of existing national (and other international) measures and initiatives to develop an Asia-Pacific Partnership cleaner fossil energy technology development program.
- Identify the potential for, and encourage uptake of, CO₂ geo-sequestration opportunities in Partnership countries.
- Further develop coal bed and waste coal mine methane gas and LNG/natural gas opportunities and markets in the Asia-Pacific region.
- Build the research and development base, and the market and institutional foundations of Partners through technology supporting initiatives, such as education, training and skills transfer.



Asia-Pacific Partnership on Clean Development and Climate Renewable Energy and Distributed Generation Objectives



- Facilitate the demonstration and deployment of renewable energy and distributed generation technologies in Partnership countries.
- Identify country development needs and the opportunities to deploy renewable energy and distributed generation technologies, systems and practices, and the enabling environments needed to support wide-spread deployment, including in rural, remote and peri-urban applications.
- Enumerate financial and engineering benefits of distributed energy systems that contribute to the Partnership's economic development and climate goals.
- Promote further collaboration between Partners on research, development and implementation of renewable energy technologies including supporting measures such as renewable resource identification, wind forecasting and energy storage technologies.
- Support cooperative projects to deploy renewable and distributed generation technologies to support rural and peri-urban economic development and poverty alleviation.
- Identify potential projects that would enable Partners to assess the applicability of renewable energy and distributed generation to their specific requirements.



Asia-Pacific Partnership on Clean Development and Climate Power Generation and Transmission Task Force Objectives



- Assess opportunities for practical actions to develop and deploy power generation, transmission and demand side management technologies that can aid development and climate concerns.
- Facilitate demonstration and deployment of practices, technologies and processes to improve efficiency of power production and transmission within Partnership countries.
- Enhance collaboration between Partners on research and development of such technologies and processes.
- Enhance synergy with relevant objectives of other Task Forces (i.e. Cleaner Fossil Energy, Renewable Energy and Distributed Generation and Buildings and Appliances).
- Identify potential projects that would enable Partner countries to assess the applicability of energy feedstocks to their specific requirements.
- Identify opportunities to enhance investment in efficient power supply by improving energy markets and investment climate.

- Develop sector relevant benchmark and performance indicators.
- Facilitate the deployment of best-practice steel technologies.
- Increase collaboration between relevant Partnership country government, research and industry steel-related institutions.
- Develop processes to reduce energy usage, air pollution and GHG emissions from steel production.
- Increase recycling across the Partnership.

- Enhance current production processes of aluminum through uptake of best-practice use of existing equipment.
- Advance the development and deployment of new best practice aluminum production process and technologies across Partnership economies.
- Enhance sector-related data, including recycling and performance.
- Facilitate increased aluminum recycling rates across the Partnership.



Asia-Pacific Partnership on Clean Development and Climate

Cement Task Force Objectives



- Facilitate demonstration and deployment of energy-efficient and cleaner product formulation technologies in Partnership countries that will significantly improve the GHG emissions intensity and the air pollutant emissions intensity of cement operations.
- Develop sector relevant benchmark and performance indicators.
- Take advantage of opportunities to build infrastructure in developing countries and emerging economies that uses energy efficient cement and concrete building and paving materials.



Asia-Pacific Partnership on Clean Development and Climate

Coal Mining Task Force Objectives

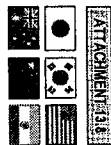


- Facilitate technologies and practices that can improve the economics and efficiencies of mining and processing and continue to improve safety and reduce environmental impacts.
- Establish, as appropriate, efficiency and emissions intensity and mine reclamation objectives based on each nation's circumstances.
- Identify current reclamation activities in each country, as appropriate, and exchange best practice information in reclamation of surface mined lands with a focus on enhanced surface reclamation practices that improve the opportunities for carbon sequestration.



Asia-Pacific Partnership on Clean Development and Climate

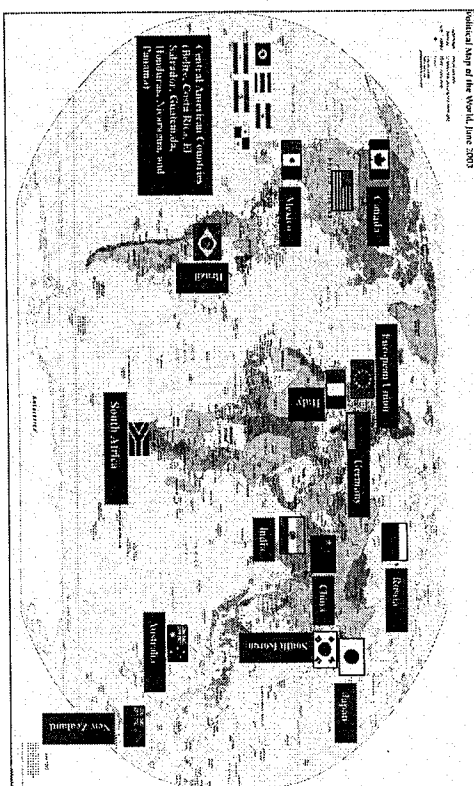
Building and Appliances Task Force Objectives



- Use cooperative mechanisms to support the further uptake of increasingly more energy efficient appliances, recognizing that extensive cooperative action is already occurring between Partner countries.
- Promote best-practice and demonstrate technologies and building design principles to increase energy efficiency in building materials and in new and existing buildings.
- Support the integration of appropriate mechanisms to increase the uptake of energy efficient buildings and appliances into broader national efforts that support sustainable development, increase energy security and reduce environmental impacts.
- Systematically identify and respond to the range of barriers that limit the implementation of end-use energy-efficiency practices and technologies.



U.S. Climate Change Bilaterals



The New York Times
nytimes.com

August 24, 2005

9 STATES IN PLAN TO CUT EMISSIONS BY POWER PLANTS

By ANTHONY DEPALMA

Officials in New York and eight other Northeastern states have come to a preliminary agreement to freeze power plant emissions at their current levels and then reduce them by 10 percent by 2020, according to a confidential draft proposal.

The cooperative action, the first of its kind in the nation, came after the Bush administration decided not to regulate the greenhouse gases that contribute to global warming. Once a final agreement is reached, the legislatures of the nine states will have to enact it, which is considered likely.

Enforcement of emission controls could potentially result in higher energy prices in the nine states, which officials hope can be offset by subsidies and support for the development of new technology that would be paid for with the proceeds from the sale of emission allowances to the utility companies.

The regional initiative would set up a market-driven system to control emissions of carbon dioxide, the main greenhouse gas, from more than 600 electric generators in the nine states. Environmentalists who support a federal law to control greenhouse gases believe that the model established by the Northeastern states will be followed by other states, resulting in pressure that could eventually lead to the enactment of a national law.

California, Washington and Oregon are in the early stages of exploring a regional agreement similar to the Northeastern plan. The nine states in the Northeastern agreement are Connecticut, Delaware, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island and Vermont. They were brought together in 2003 by a Republican governor, George E. Pataki of New York, who broke sharply and openly with the Bush administration over the handling of greenhouse gases and Washington's refusal to join more than 150 countries in signing the Kyoto Protocol, the agreement to reduce emissions that went into effect earlier this year.

Mr. Pataki, who may be considering a run for the Republican nomination for president, has refrained from criticizing President Bush directly, but he has repeatedly said that the states need to act on their own even if the Bush administration has not made the issue a priority.

Preliminary details of the region's emission reduction goals were included in a confidential memo circulated among officials of all nine states that was given to The New York Times by a person who supports the enactment of national legislation to control emissions, but who did not want to be identified because he was not authorized to have the memo.

Andrew Rush, a spokesman for Governor Pataki, declined to comment on the draft because it was not a

<http://select.nytimes.com/search/restricted/article?res=F30715FF355A0C778EDDA10894...> 11/8/2006

final document. However, he said, "a tremendous amount of progress has been made and we look forward to continuing to work with the other states so that we can reach a final agreement that will build on the governor's strong record of protecting the environment and reducing harmful emissions."

Samuel Wolfe, assistant commissioner for the New Jersey Department of Environmental Protection, who has been actively involved in the negotiations, said that there is still work to be done on the proposal but that "the states are working very productively to resolve the issues and we have very high hopes of getting a resolution through to all the states by the end of September."

In a statement, James L. Connaughton, chairman of the White House Council on Environmental Quality, tried to put the states' initiative in a positive light. "We welcome all efforts to help meet the president's goal for significantly reducing greenhouse gas intensity by investing in new, more efficient technologies," he said.

In recent years, New York and other Northeastern states have aggressively tried to reduce power plant emissions. Several have joined together to sue coal-fired power plants in Midwestern states that produce sulfur dioxide and nitrogen oxide that drift across state borders and cause acid rain in the Northeast.

The Northeastern region is itself a substantial producer of greenhouse gases. Environmental groups calculate that the region's carbon dioxide emissions are roughly equivalent to those of Germany.

While any reductions achieved in the region would be significant, environmentalists believe that the real importance of the cooperative effort is in the example it sets for other states.

"We're not going to solve the problem of global warming in the Northeastern states," said Dale S. Bryk, a senior attorney with the Natural Resources Defense Council who has been watching the regional effort since it was proposed by Governor Pataki in a letter to the other governors in April 2003, "but we're showing that we have the American ingenuity to do this and we're setting a precedent in terms of the design of the program."

As outlined in the draft, the regional carbon dioxide control plan would set specific caps on emissions that would drop over time.

The hope is that by providing long-range incentives for the electric generating companies to comply, the program will make improvements more cost-effective.

Emissions would be capped at 150 million tons of carbon dioxide a year, a figure that is about equal to the average emissions in the highest three years between 2000 and 2004. Each of the nine states would have its own cap. New York's, at 65.6 million tons, would be the largest. Vermont's would be the smallest, with 1.35 million tons.

The caps would be enforced starting in 2009. By that time, restricting emissions to levels prevailing now would, in effect, require a reduction of emissions relative to power output, because electric generation is expected to increase between now and then. The 150 million-ton cap would be sustained through 2015, when reductions would be required, reaching 10 percent in 2020. The Kyoto protocol freezes emissions at the 1990 level and imposes a 7 percent reduction in 2012.

Environmentalists say there are too many variables involved to directly compare the two programs, but they are believed to achieve roughly the same kind of carbon reductions. However, some environmentalists are disappointed with the draft plan. They argue that much deeper cuts were

<http://select.nytimes.com/search/restricted/article?res=F30715FF355A0C778EDDA10894...> 11/8/2006

achievable.

"It's good that they are going to be talking about actual reductions," said Robert J. Moore, executive director of Environmental Advocates of New York. "However, the targets that are being contemplated, though a positive step, are somewhat less than ambitious."

Gavin J. Donohue, president of the Independent Power Producers of New York, said that meeting the proposed caps "would be very difficult" for electric generators in New York, especially now that the price of oil has soared.

Mr. Donohue, who once worked for Governor Pataki in the Department of Environmental Conservation, said that his principal concern was assuring that the limits will not put electric generators in New York and the other states at a competitive disadvantage with states that were not constrained.

The Bush administration's rejection of the Kyoto Protocol has caused deep divisions nationwide, with many local governments attempting to force the administration to taking action by passing their own carbon dioxide rules.

Earlier this year, for example, the mayors of more than 130 cities, including New York and Los Angeles, joined in a bipartisan coalition to fight global warming on a local level by agreeing to meet the emissions reductions contained in the international pact.

One part of the proposal that is not yet final deals with the sale of emission allowances under a cap-and-trade system. Such systems allow generating companies that have not used all of their emission quotas to sell the right to emit more pollution to competitors. In this way, the total amount of pollution can be controlled, while the economic viability of the companies is protected.

When this system was used in Europe, the carbon dioxide allowances were given to the generating companies. The Northeastern states are considering withholding some allowances and selling them to the generating companies.



Statement to the Second Meeting of the Plenary

Dr. Harlan L. Watson, Senior Climate Negotiator and Special Representative and Head of the U.S. Delegation
Ninth Session of the Conference of the Parties (COP-9) to the UN Framework Convention on Climate Change
Milan, Italy
December 4, 2003

Review of implementation of commitments and of other provisions of the Convention (Agenda Item 4) National communications from Parties included in Annex I to the Convention (Agenda Item 4(b)(i))

Mr. President, today is the first time the United States has made remarks in a COP 9 Plenary, and I first want to congratulate you on your election as President of COP 9, as well as to express the gratitude of the United States to the Government and people of Italy for their warm and generous hospitality and for the excellent arrangements made for this COP.

We welcome the opportunity given here today during consideration of this important agenda item to highlight U.S. actions to implement its commitments and of other provisions of the Convention. I will briefly summarize U.S. actions to address climate change.

Mr. President, climate change is an issue of great importance to the United States. We are taking concrete actions and are investing billions to dollars annually to address climate change -- both in the near-term and long-term. We are also fully engaged internationally, and are leading major multilateral and bilateral climate change initiatives with our developing and developing country partners.

President Bush's climate change policy reaffirms the U.S. commitment to the United Nations Framework Convention on Climate Change and its ultimate objective -- to stabilize atmospheric greenhouse gas (GHG) concentrations at a level that will prevent dangerous human interference with the climate. It has three basic components designed to address both the near-term and long-term aspects of this global challenge.

The first component involves a series of near-term actions aimed at slowing the growth of our greenhouse (GHG) emissions. The President set a national goal of reducing U.S. GHG intensity (GHG emissions per dollar of GDP) by 18 percent over the next 10 years -- a nearly 30% improvement over business-as-usual. Meeting the President's commitment will achieve more than 500 million metric tons of carbon-equivalent emissions reductions from business-as-usual estimates through 2012 -- an amount equal to taking 70 million cars off the road.

The second component focuses on laying the groundwork for both current and future action -- investments in science, technology, and institutions. We need better science to promote better decision-making, better technology to slow GHG emissions growth, and better institutions to enable us to pursue the lowest-cost emissions reduction opportunities.

The third component is international cooperation, which is of critical importance to the development of any effective and efficient global response to the complex and long-term challenge of climate change. This includes bilateral and multilateral cooperation on both near-term efforts to slow the growth in emissions and on longer-term science and technology initiatives.

Since 2001, the U.S. has revitalized or initiated 13 formal bilateral climate change partnerships with both developed and developing countries and we look forward to continuing to work closely with our partners to advance climate change science and technology, as well as capacity-building activities that will benefit us all.

With regard to technology, there is a growing realization that existing energy technologies, even with substantial improvements, cannot meet the growing global demand for energy while delivering the emissions reductions necessary to stabilize atmospheric GHG concentrations. We need to develop and deploy globally revolutionary changes in the

technologies of energy production, distribution, storage, conversion, and use. Some examples include carbon sequestration, hydrogen, and advanced nuclear technologies. The U.S. is not only pursuing these domestically, but is also leading three major multilateral international technology efforts that I would like to briefly highlight:

- First, the Carbon Sequestration Leadership Forum launched by the United States in June of this year in Washington, involving 13 nations and the European Commission, advance technologies that capture and store carbon emissions from the combustion of fossil fuels -- fuels that will be an important part of the global energy mix for decades to come. The Forum's partners will also be invited to participate in our \$1 billion FuelCell project -- an initiative to design and construct the first emission-free coal-fired power plant that will test the latest technologies to generate electricity, produce hydrogen, and sequester GHG emissions from coal.
- Second, the International Partnership for the Hydrogen Economy initiated by the United States last month in Washington, involving 15 nations and the European Commission, to coordinate multinational research and development programs to accelerate the transition to a global hydrogen economy.

- And, third, under the U.S.-led Generation IV program, ten nations are working on new fission reactor designs that will be safer, more economical and secure, and able to produce new products, such as hydrogen.

Taken together, if these multilateral research and technology initiatives, along with the International Thermonuclear Experimental Reactor (ITER) -- a multilateral project that seeks to harness the power of nuclear fusion by mid-century -- are successful, the result will be a long-term revolution in our energy systems. Not only will these technologies put us on a long-term path to stabilizing atmospheric GHG concentrations, they will also ensure secure, reliable, affordable, and clean energy to power economic growth and development across the globe.

Finally, I would like to highlight the efforts being made by State and local governments in the United States to address climate change. Geographically, the United States encompasses vast and diverse climatic zones representative of all major regions of the world -- polar, temperate, semi-tropical, and tropical -- with different heating, cooling, and transportation needs and with different energy endowments. Such diversity allows our State and local governments to act as laboratories where new and creative ideas and methods can be applied and shared with others and inform federal policy -- a truly bottom-up approach to addressing global climate change.

At the State level, 40 of our 50 States have prepared GHG inventories, 27 States have completed climate change action plans, and 8 States have adopted voluntary GHG emissions goals. In addition, 13 States have adopted Renewable Portfolio Standards requiring electricity generators to gradually increase the portion of electricity produced from renewable resources such as wind, biomass, geothermal, and solar energy. And, at the local level, more than 140 local governments participating in the Cities for Climate Protection Campaign are developing cost-effective GHG reduction plans, setting goals, and reducing GHG emissions.

Mr. President, in closing, it is the hope of this delegation -- and one I hope is shared by all delegations here today -- that COP 9, the Milano COP, be remembered as the COP that began a new phase in the global effort to address the enormous challenge of climate change. We believe this new phase can be best described as one in which we are all working together to address the challenge. In the past, our deliberations have been marked by rhetoric and have proven less than productive. While there will be and should be vigorous debates and exchanges of views and times when we will have to agree to disagree, we must respect the right of individual nations to determine their own national interests, and we should always remember that we are all working toward the same goal, and that we all must cooperate in this important effort.

Thank you for your attention.

Released on December 4, 2003



COP 11/MOP 1 Press Conference

Dr. Helen L. Watson, Senior Climate Negotiator and Alternate Head of the U.S. Delegation

Montreal, Canada
November 29, 2005

Dr. Watson: Thank you all for coming here today.

Good afternoon. The United States is focused on making progress under the United Nations Framework Convention on Climate Change at COP 11, which is being held in parallel with the first meeting of the Parties to the Kyoto Protocol here in Montreal. We remain committed to the Framework Convention and we are doing much to contribute to its objectives.

In 2002, President Bush set an ambitious national goal to reduce the greenhouse gas intensity of the United States economy by 18% by 2012. This goal is a key element of our strategy to slow, and at the second meeting, stop and then reverse the accumulation of greenhouse gases in the atmosphere.

Our emissions intensity approach ensures a focus on policy measures that reduce emissions while fostering a growing, prosperous economy. The President's policies harness American ingenuity and innovation to develop and deploy cleaner, more efficient and effective energy technologies.

Our approach is working. We are already well on track to meet the President's 2012 goal and we are reducing our emissions intensity at a faster rate than many countries covered by the Kyoto Protocol. The United States is actively pursuing our climate change strategy: we are in the implementation phase, and we are spending approximately \$5 billion annually – more than any other country – on science and technology.

And through bilateral and U.S.-led multilateral partnerships with nearly all major developed and developing countries, we are leading a global approach to achieving our clean development, and address climate change require integrated solutions that achieve sustainable development.

We are moving forward on a multitude of local, regional and global energy, clean development and climate change initiatives that support the broader goals of promoting economic growth, meeting the need for greater energy resources for poverty eradication, enhancing social conditions, and protecting the environment.

So, in short, the U.S. has a three-prong approach to climate change that addresses both its near-term and long-term aspects. First, by slowing the growth of greenhouse gas emissions by reducing our greenhouse gas intensity by 18 percent by 2012, laying important groundwork for future action through major investments in



science and technology, and third, cooperating internationally with other nations to develop an efficient and effective global response.

We have in place more than 60 mandatory, incentive-based, and voluntary Federal programs designed to help meet the President's greenhouse gas intensity goal, which would reduce emissions by more than 500 million metric tons of carbon-equivalent by 2012, an amount equal to taking 70 million cars off the road. And we have made steady progress toward the goal. Between 2000 and 2003, President Bush's first three years in office, the United States managed to reduce its total greenhouse gas emissions by 1.5 percent. That's a significant achievement, considering that the United States has the world's largest economy, with more than 280 million people, which is roughly the combined population of Ireland and Norway. The emission trend is the fifth best among developed countries during these three years. These reductions have come from desirable improvements in efficiency and deployment of advanced energy technologies and practices, the continued structural shifts in our economy to lower emitting industries, and an understandable shift of higher-emitting energy intensive industries to other countries with significantly lower energy costs.

The United States continues to lead the world in funding on climate change science and technology. We are advancing the development and deployment of a broad range of key technologies, such as renewables, energy efficiency, advanced fossil and nuclear, hydrogen, and carbon capture and storage, that together have the potential to achieve substantial greenhouse gas emissions reductions. And nearly every major provision of the broad-based Energy Independence and Security Act of 2005 provides incentives for cleaner, more efficient, and less greenhouse gas intensive energy systems, including over \$11 billion in incentives for production of wind, geothermal, and solar power, consumer tax credits for highly fuel efficient hybrid and clean diesel vehicles, clean coal technology, emissions-free nuclear power, and removable bio-fuels.

The Administration's international engagement on climate change issues centers on five key ideas, all of which extend from and build upon our own experience at home in the United States:

First, a successful international response to climate change requires developing country participation, which includes both near-term efforts to slow the growth in emissions and longer-term efforts to build capacity for future cooperative actions.

Second, we will make more progress on this issue over time if we recognize that climate change goals fall within a broader development agenda – one that promotes economic growth, poverty eradication, and environmental protection. Countries do not look at individual development goals in a vacuum, and approaches that effectively integrate both near-term and longer-term goals will yield more benefits over time.

Third, technology is the glue that can bind these development objectives together. By promoting the development and deployment of cleaner and more efficient technologies, we can meet a range of diverse development and climate objectives simultaneously.

Fourth, we need to pursue our international efforts in a spirit of collaboration, not competition, and with a true sense of partnership. This is especially true in our relations with developing countries, which have an imperative to grow their economies and provide for the welfare of their citizens.

And finally, we need to engage the private sector to be successful. While the right kind of government-to-government collaboration can pave the way for great progress, we will need to harness the ingenuity, resources, and vision of the private sector in developing and deploying technology.

And we are putting these ideas into practice. Internationally, the United States is implementing bilateral and multilateral climate change partnerships. Bilaterally, we have partnerships with 15 countries and regional organizations, including the European Union, and we are working with our partners on over 400 activities in the areas



of climate change research and science, climate observation systems, clean and advanced energy technologies, and policy approaches to reducing greenhouse gas emissions. We also continue to assist many developing country efforts to build the scientific and technological capacity needed to address climate change.

The United States has also funded six climate change science and technology initiatives. These include the Group on Earth Observations, the Generation IV International Forum on Nuclear Technology, the Carbon Sequestration Leadership Forum, which is developing carbon capture storage technology, the International Partnership for the Hydrogen Economy, the Methane-to-Chemicals Partnership, and, most recently, the Asia-Pacific Partnership on Clean Development and Climate.

Finally, I want to address the issue that received much attention here in Montreal – to a so-called “post-2012 process.” Kyoto Parties are legally obligated to commence discussions here in Montreal on a second commitment period, which for them would presumably begin in 2013. We expect that obligation and expect that they will meet their commitment to do so. However, the United States is opposed to any such discussions under the Framework Convention.

We are involved in climate discussions on an ongoing basis through many government and non-governmental venues, including the G8 and bilateral and regional discussions with other countries.

These engagements provide many opportunities for countries to join together to discuss climate policy, often focused on practical steps to advance climate change, such as accelerating the development and deployment of advanced energy technologies.

Within the Framework Convention, we have had numerous opportunities for countries to join together to discuss climate policy and have welcomed our ability to participate in and to learn from the discussions that have taken place during official COP roundtables and the Senior of Government Experts in Bonn last May.

However, formalized discussions under the Framework Convention – which is the current proposal by some Parties – are in fact negotiations. The U.S. position remains consistent. We see no change in current conditions that would result in a negotiated agreement consistent with the U.S. approach.

The United States seeks to focus attention on progress toward the shared objective of the Framework Convention rather than to debate positive approaches toward a new round of negotiations based upon the Kyoto Protocol. We are not a party to the Kyoto Protocol and we do not support any such approach under the Convention for future commitments.

U.S. climate policy is founded upon the conviction that actions bring results. We believe that it is best to address the complex issue through a range of programs and technology initiatives that address climate change issues through partnerships based upon both near-term and longer-term sustainable development and clean energy objectives.

Thank you for your attention. I will be happy to respond to any questions you may have.

After: Doyle with Pastors. You've said you're not interested in further discussions and developing on the future of the Convention and yet in the G8 declaration did say that we are committed to move forward in Montreal's global discussions on long-term cooperative actions to address climate change.

How will you be meeting that G8 commitment here?

Dr. Watson: We are moving forward. We are making progress under the Convention. And we are discussing things like technology development, longer-term things. We are having major discussions with many of our partners both regional and bilateral about how to move forward in a constructive manner. So we are moving forward. Tim Harett with BBC News. Tony Blair said this morning in a speech to the Confederation of British Industry in London: “I believe there will be a binding international agreement to succeed Kyoto when the protocol expires in 2012 that will include all major economies.”

I take it from your comments just now that he is plain wrong.

Dr. Watson: Well, I haven't seen all the words that go around that. The Prime Minister has made several statements of late. I really don't want to put words in his mouth – but, no, we would certainly not agree that the United States would be part of a legally binding target and timetable agreement post-2012.

Many Copies from Parties. Thanks. To clarify, if countries here that have ratified the Treaty went ahead with their own post-2012 framework, decided on that – call it strategy or whatever – the U.S. wouldn't oppose them from doing that?

Dr. Watson: No, absolutely not. And, in fact, they are required to. We view the activities under the Convention itself as well as the activities under COP and MOP – they are two separate and distinct legal instruments, the Kyoto Protocol and the Convention.

Parties that have ratified Kyoto are obligated. They have signed. They ratified. They are obligated to initiate those discussions here.

As I said earlier, we expect they will meet their commitments.

After: Von Geve with the publication Sustainable Development International. Just before I ask my actual question, I am interested to note that if the 15 percent of countries that have signed but not ratified Kyoto are not actually signing in Kyoto, how much will technology capacity will there be in terms of CDM and carbon capture storage?

Dr. Watson: I really don't know the answer to that question. CDM is being reviewed here. There are many projects in the pipeline. Again, I don't know the situation with what decisions may or may not be being taken with regard to carbon capture and storage within the CDM.

After: Gaskell, Radio-Canada. When we talk in Montreal who are interested in the conference, many always mention that the U.S. position at the conference does not reflect the position of the U.S. Senate. The U.S. Senate has passed a resolution in June asking for the U.S. to go ahead pressing for more involvement. There is also a resolution that was introduced very lately by Senator Biden and Senator Lugar, a Republican, from the Foreign Affairs committee, asking for more involvement.

I would like to have your comments on the American negotiation team's position at this conference compared to what is going on in the American Congress now.

Dr. Watson: There are a number of things that are going on in the U.S. Congress and we certainly appreciate the interest of you know, the members of Congress both in the House and the Senate on this issue and, particularly, Senators Lugar and Biden, and their efforts to further constructive dialogue.

Let me tell you the basis. If you read the resolution – basically, it says what we are supposed to do is to negotiate agreements, which would a) not hurt the U.S. economy and b) involve developing countries. In context, it is basically no different than the Byrd-Hagel Resolution, which was passed in 1997.

Everything that the previous Administration came back from Kyoto with in terms of binding the United States – or attempting to bind the United States to that agreement – was totally counter to what the U.S. Senate had instructed.

So nothing has changed. There is no interest among developing countries for binding targets and timetables nor should there be. We wouldn't expect them as Prime Minister Blair said recently, “We, in fact, can't expect any country – it is a political reality – we can't expect any country to sacrifice its economic growth to solely address climate change. In particular, large developing countries.”

So we have a situation whereby you are not going to have developing countries join in any agreement which is 1) a substantially major criterion that the U.S. Senate just passed. And, second, we don't see that any agreement, particularly pushed by Parties that would call for an additional 15 to 30 percent reduction by 2020 over and above what is required for those who are in the Protocol would have anything but devastating impacts to the U.S. economy.

So it's a mixed message.

Jeff Jones with Reuters News: We heard from representatives of major environmental groups this morning that, basically, the whole process is flawed and kind of doomed to failure without U.S. participation in a full sense. I am wondering if you might react to that.

Dr. Watson: I didn't see that particular ... I did see the reference this morning. I think it was in ECO that was urging folks to go ahead under the Protocol itself. I don't know why it is doomed. There is more than one way to address climate change. There are many approaches.

The idea that you have to be bound by a Kyoto-like structure to address the issue we believe is a fallacious one. Once again, look at the data. Look at the data. The United States has done better in the first three years of the Bush Administration in addressing greenhouse gas emissions than the EU15, EU25, the UK, France, Germany – I mean, I can go down the laundry list for you. We are not taking a lamepate and timelapse approach.

I reject the premise that the Kyoto-like agreement is necessary to address the issue. There are many approaches. We are on a different one from the Kyoto path. We're all coming forward at the end -- the main objective is to lower emissions in the long run.

Kathryn Kovacs from Radio Canada: If you are so much opposed to post-2012 what do we intend to do here until 5th of December and -- do you have other countries here that are in favor of your position and who are they?

Dr. Watson: I am not sure whether other countries are on the particular issue. If you look at the COP-9 Parties agenda, there is a full suite of activities under the Framework Convention as well as a full slate of activities and issues to be considered under the MCP and the Protocol. Chief among these, of course, under the Convention are the work on the five-year program of adaptation for climate change and on adaptation, which was agreed to and developed in Buenos Aires last year and capacity building research systematic observations, a number of funding issues, at Geneva, at Geneva. So there are a whole suite of issues that will keep our delegation quite busy over the next two weeks.

Thank you

No. 05-1120

IN THE
Supreme Court of the United States

COMMONWEALTH OF MASSACHUSETTS, *et al.*

Petitioners,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
Respondent.

On Writ of Certiorari to the
United States Court of Appeals
for the District of Columbia Circuit

**BRIEF FOR AMICUS CURIAE
MADELEINE K. ALBRIGHT
IN SUPPORT OF PETITIONERS**

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INTEREST OF *AMICUS CURIAE*¹

Amicus Madeleine K. Albright served as Secretary of State of the United States from 1997 to 2001. From 1993 to 1997, Dr. Albright was the United States permanent representative to the United Nations. Dr. Albright has longstanding professional expertise in foreign policy and international diplomacy, and a strong interest in the Court's resolution of the legal issues in this case to the extent that they bear on foreign policy and international diplomacy.

Now a principal of The Albright Group LLC, a global strategy firm, and the first Michael and Virginia Morara Endowed Professor in the Practice of Diplomacy at the Georgetown School of Foreign Service, Dr. Albright also serves on the board of directors of the Council on Foreign Relations and the Aspen Institute.

Amicus does not advocate any particular foreign policy approach to global climate change, and takes no position here on the merits of the current government's approach to climate change. The purpose of this brief is to alert the Court to the disturbing implications of one of the government's claims in this case: that the EPA Administrator may decline to regulate greenhouse gases under the Clean Air Act, even if he has the requisite regulatory authority, based in part on foreign policy considerations unrelated to the statutory criteria established by Congress.

¹ The parties have consented to the filing of this brief. Their consent letters are on file with the Clerk of the Court. Pursuant to Rule 37.6, counsel for *Amicus Curiae* certifies that this brief was not written in whole or in part by counsel for any party, and that no person or entity other than counsel for *Amicus* has made a monetary contribution to the preparation and submission of this brief.

2

SUMMARY OF ARGUMENT

The Clean Air Act, § 202(a)(1), provides that the Administrator of the EPA "shall by regulation prescribe . . . standards applicable to the emission of any air pollutant" from any class of motor vehicles "which in his judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare." 42 U.S.C. § 7521(a)(1). In denying a petition seeking regulation under this provision of certain greenhouse gases ("GHGs") emitted by motor vehicles, the EPA claimed several policy rationales unrelated to these express statutory criteria. Among them, it asserted a foreign policy rationale, namely that "[u]nilateral EPA regulation of motor vehicle GHG emissions could also weaken U.S. efforts to persuade key developing countries to reduce the GHG intensity of their economies." Pet. App. A86. The agency concludes that, "[u]navoidably, climate change raises important foreign policy issues, and it is the President's prerogative to address them." *Id.*

Amicus has three objections to this assertion based on her longstanding experience in foreign policy and international diplomacy. *First*, the EPA possesses neither the mandate nor the expertise necessary to make foreign policy judgments. Congress has not authorized the EPA to consider foreign policy in the exercise of its "judgment" whether to regulate greenhouse gases; indeed, foreign policy is nowhere mentioned in the relevant provision. Congress has been careful to separate the EPA's domestic regulatory function from the formulation of international climate policy, which Congress has specifically assigned, in the Global Climate Protection Act of 1987, to the Department of State.

Second, even if foreign policy considerations were relevant to the EPA's "judgment" under the Clean Air Act, § 202(a)(1), the EPA's foreign policy rationale for

withholding regulation here does not deserve deference under either *Chevron U.S.A., Inc. v. Natural Resources Defense Council*, 467 U.S. 837 (1984), or *Skidmore v. Swift & Co.*, 323 U.S. 134 (1944). The EPA's judgment was not produced through consultation with expert foreign policy agencies. It also contradicts relevant diplomatic experience. There is no natural tension between domestic regulation and the ability of the United States to conduct foreign policy on climate change or related matters. Withholding regulation has not been a pre-condition for engaging other nations in global solutions in the past.

Moreover, the EPA's rationale conflicts with the government's own foreign policy on global warming. The EPA's rationale implies that withholding domestic regulation is necessary to ensure the government's ability to bargain with other nations over GHG. This might be true if the government were pursuing a "bargain through leverage" strategy, in which the government withheld mandatory domestic reductions unless and until other nations agreed to mandatory reductions as well. But the government is not doing so. It is pursuing instead a policy of encouraging voluntary action on the part of developing nations, consistent with the economic development priorities of those nations. Domestic regulation under § 202(a)(1) cannot "weaken" the government's ability to persuade developing nations to make voluntary reductions consistent with their own priorities.

Third, the EPA's invocation of a speculative foreign policy concern as a basis for declining to implement a domestic statutory mandate has troubling implications beyond this case. If this Court were to accept the existence of such an amorphous foreign policy override, any statutory provision requiring agency "judgment" on the basis of statutory criteria could be transformed into a discretionary question of foreign relations, raising serious separation of powers concerns. Given the number of domestic issues that are now the subject

of international negotiation, the opportunities for executive invocation of such a foreign policy trump are substantial. In the long run, the nation's diplomatic efforts are likely to be compromised by such an approach.

For these reasons, *Amicus* supports reversal of the judgment of the D.C. Circuit below.

ARGUMENT

Nothing in the Clean Air Act, § 202(a)(1), refers to foreign policy. Rather, that provision states simply that the Administrator of the EPA "shall by regulation prescribe . . . standards applicable to the emission of any air pollutant" from any class of motor vehicles "which in his judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare." 42 U.S.C. § 7521(a)(1). The EPA claims nonetheless that foreign policy considerations help to justify its refusal to regulate greenhouse gas ("GHG") emissions. Specifically, the Administrator asserts that domestic regulation of greenhouse gases could "weaken U.S. efforts to persuade key developing countries to reduce the GHG intensity of their economies," and suggests that climate change must be left to the foreign policy prerogative of the President without agency action. *Pel. App. A86*.

This claim is unpersuasive as a matter of foreign policy and international diplomacy, for three reasons. First, foreign policy considerations are not relevant to EPA's domestic regulatory judgment under the Clean Air Act, § 202(a)(1). Congress has made this clear both in the plain text of the Clean Air Act and in the Global Climate Protection Act of 1987. Second, even if foreign policy considerations were relevant to the EPA's judgment under § 202(a)(1), the particular foreign policy rationale the EPA offers here for withholding domestic regulation is not entitled to deference

under any applicable standard of review. The EPA's foreign policy claims have no support in the record, contradict relevant diplomatic experience, appear not to be the product of consultation with relevant expert foreign policy agencies, and are irrational in light of the government's own foreign policy on climate change. Finally, if speculative foreign policy considerations may be used by the EPA to justify a refusal to regulate, as the EPA suggests, then foreign policy might become a trump card for the executive branch in a variety of domestic matters that are subject to international negotiation. This argument invites the misuse of foreign policy for domestic policy goals. Under such an approach, the long-term diplomatic interests of the United States would be compromised, not enhanced.

I. Foreign Policy Considerations Should Play No Role in the EPA's Exercise of Judgment Regarding Domestic Regulation of Greenhouse Gases under the Clean Air Act, § 202(a)(1)

Congress has not delegated foreign policy considerations to the EPA under the Clean Air Act, § 202(a)(1). The language of the statute omits any foreign policy concerns, and a negative implication may be drawn from the fact that Congress has elsewhere delegated responsibility for global climate change policy to the Department of State, not the EPA.

To begin with, the Clean Air Act, § 202(a)(1), nowhere mentions foreign policy as a relevant consideration, limiting the EPA's "judgment" instead to the narrow question of whether motor vehicles emitting greenhouse gases can "cause or contribute to air pollution which may . . . endanger public health or welfare." Congress well knows how to delegate foreign policy tasks to executive agencies, including in the environmental area. Indeed, several sections of the Clean Air Act specifically refer to some aspect of United States foreign

policy or international law.² Section 202(a)(1), by contrast, remains resoundingly silent on foreign policy considerations.

Moreover, Congress has made the irrelevance of foreign policy to the EPA's domestic judgments under § 202(a)(1) doubly clear by designating the Department of State, not the EPA, as the executive agency responsible for United States foreign policy regarding climate change. *See* Global Climate Protection Act of 1987 ("GCPA"), Pub. L. No. 100-204, § 1103(c), 1987 U.S.C.A.N. (101 Stat.) 1331, 1409. The GCPA tasks the State Department with the coordination of "United States Policy in the International Arena" and, in contrast, charges the EPA with the formulation of "United States policy." *See* GCPA § 1103(b) ("The President, through the Environmental

² *See e.g.*, 42 U.S.C. § 7415 (under the title "International Air Pollution," stating that when the Administrator believes that pollution originating in the United States is endangering the public health or welfare in another nation, he shall notify the governor of the state from which the emissions originate, which must modify its policy to prevent such endangerment); § 7617 (under the title "Stratospheric Ozone Protection," providing that "the President through the Secretary of State and the Assistant Secretary of State for Oceans and International Environmental and Scientific Affairs, shall negotiate multilateral treaties, conventions, resolutions, or other agreements, and formulate, present, or support proposals at the United Nations and other appropriate international forums and shall report to the Congress periodically on efforts to arrive at such agreements"); § 7702(a) (under the heading "Congressional findings on acid rain," stating that "[t]he Congress finds and declares that acid precipitation resulting from other than natural sources . . . could affect areas distant from sources and thus involve issues of national and international policy").

³ Under the heading "Coordination of United States Policy in the International Arena," GCPA § 1103(c) states: "The Secretary of State shall be responsible to coordinate those aspects of United States policy requiring action through the channels of multilateral diplomacy, including the United Nations Environmental Program and other international organizations."

Protection Agency, shall be responsible for developing and proposing to Congress a coordinated *national* policy on global climate change" (emphasis added)).

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In addition, the GCPA conspicuously omits the State Department from the list of agencies whose findings the EPA must consider before making domestic climate policy.⁴ The listed agencies are primarily responsible for scientific findings relevant to EPA's threshold "endangerment" determination under § 202(a)(1). This supports the claim that Congress intends the EPA's domestic regulatory judgments to be independent of foreign policy considerations and focused instead on the express statutory criteria.

If anything, the GCPA suggests that the EPA has it backwards: the State Department must take account of minimum regulatory standards in *domestic* regulation when formulating *international* climate policy, not the other way around. Thus, domestic climate regulation is a floor below which international agreements may not go. See GCPA § 1103(c) ("In the formulation of [aspects of U.S. policy requiring multilateral diplomacy], the Secretary of State shall, under the direction of the President, work jointly with the Administrator of the Environmental Protection Agency and other United States agencies concerned with environmental protection, consistent with applicable Federal law."). But Congress has given no indication that domestic policy must similarly defer to foreign policy in the international climate policy arena. In the face of such contrary congressional

⁴ See GCPA § 1103 (b) ("Such policy formulation shall consider research findings of the Committee on Earth Sciences of the Federal Coordinating Council on Science and Engineering Technology, the National Academy of Sciences, the National Oceanic and Atmospheric Administration, the National Science Foundation, the National Aeronautic and Space Administration, the Department of Energy, the Environmental Protection Agency, and other organizations engaged in the conduct of scientific research.").

indications, the EPA's assertion of foreign policy grounds to decline to regulate domestic greenhouse gases is unauthorized.

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II. The EPA's Alleged Foreign Policy Rationale Deserves No Special Deference Because It Lacks Foundation in Agency Expertise and Is Contrary to Relevant Diplomatic Experience

Even if foreign policy considerations were relevant to the EPA's "judgment" under the Clean Air Act, § 202(a)(1), the EPA's foreign policy rationale in this case warrants no special deference. Agencies are entitled to deference only for judgments made pursuant to their specific mandates. For example, deference is appropriate under *Cherron U.S.A., Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837 (1984), "when it appears that Congress delegated authority to the agency generally to make rules carrying the force of law, and the agency interpretation claiming deference was promulgated in the exercise of that authority." *United States v. Mead Corp.*, 533 U.S. 218, 226-27 (2001).

By contrast, when an agency acts on matters not delegated to the agency by statute and beyond its expertise, no special deference is appropriate. See *Gonzalez v. Oregon*, 126 S. Ct. 904, 922 (2006) (holding that the Attorney General's statutory authority to schedule controlled substances did not extend to prohibiting doctors from prescribing regulated drugs for use in physician-assisted suicide under state law permitting the procedure, noting that "deference here is tempered by the Attorney General's lack of expertise in this area and the apparent absence of any consultation with anyone outside the Department of Justice who might aid in a reasoned judgment").

In keeping with these general principles, this Court has deferred to administrative agencies on matters of foreign policy only when those agencies can claim a statutory

mandate to consider foreign policy, and when they possess concomitant expertise. See *Japan Whaling Association v. American Cetacean Society*, 478 U.S. 221 (1986) (deferring to the Secretary of Commerce's refusal to certify a nation's non-conformity where the relevant statute specifically directed the agency to determine whether the nation's fishing practices undermined international conservation programs). See also *Sumitomo Shoji America, Inc. v. Aragliano*, 457 U.S. 176, 184-85 (1982) (deferring to the State Department's interpretation of an international treaty on grounds that, "[a]lthough not conclusive, the meaning attributed to treaty provisions by the Government agencies charged with their negotiation and enforcement is entitled to great weight."); *Zadvydas v. Davis*, 533 U.S. 678, 700 (2001) (accordings weight to decisions of the Immigration and Naturalization Service because of the agency's "greater immigration-related expertise").

Here, as with the Department of Justice's interpretation of its authority in *Gonzalez v. Oregon*, the EPA's interpretation that its § 202(a)(1) "judgment" includes foreign policy discretion was not made pursuant to any delegation by Congress. Unlike the Department of Commerce in *Japan Whaling*, the EPA was not charged by Congress with making any finding regarding foreign nations or international agreements. Indeed, foreign policy is nowhere mentioned in § 202(a)(1). The appropriate standard of review is therefore not that applied in *Chevron* but rather that applied in *Skidmore v. Swift & Co.*, 323 U.S. 134 (1944) (holding an agency interpretation entitled to respect only to the extent it has the power to persuade).

Under *Skidmore*, the EPA's foreign policy rationale is not entitled to deference. Here, as in *Gonzalez v. Oregon*, the agency came up with its policy rationale entirely on its own, even though it lacked the relevant expertise. Nothing in the record suggests that the EPA consulted with the Department

of State, the National Security Council, or any other relevant agency with foreign policy expertise, on whether its foreign policy position was appropriate.

Even if the more deferential *Chevron* standard of review were applicable, the EPA's rationale does not meet the requisite standard of reasonableness. To begin with, there is nothing in the record to support the EPA's assertion that domestic regulation would "weaken" United States efforts to engage developing nations in reducing their greenhouse gas emissions. Diplomatic experience suggests that this assertion is incorrect. Withholding regulation has not in the past been a pre-condition for engaging other nations in global solutions to environmental problems. The United States is party to several international agreements on air pollution that were negotiated *after* related domestic regulation was already authorized and underway.⁵ These agreements suggest that prior domestic regulation does not tie the government's diplomatic hands on a matter of global concern when it later negotiates international agreements.

It is at least equally plausible that domestic regulation might help prompt other nations to join in later international responses to global environmental problems. For example,

⁵ See Convention on Long-Range Transboundary Air Pollution, Nov. 13, 1979, T.I.A.S. No. 10,541, *reprinted* in 18 I.L.M. 1442. See also Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution to Abate Acidification, Eutrophication and Ground-Level Ozone, Nov. 30, 1999, State Dept. No. 05-181, *available at* <http://www.uncece.org/env/irap/full%20text/1999%20MultiE.Amended2005.pdf>; Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution on Heavy Metals, June 24, 1998, State Dept. No. 04-33, *available at* <http://www.uncece.org/env/irap/full%20text/1998HeavyMetals.e.pdf>; Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution Concerning the Control of Emissions of Nitrogen Oxides or Their Transboundary Fluxes, Oct. 31, 1988, T.I.A.S. No. 12,086, *available at* <http://www.uncece.org/env/irap/full%20text/1988.NOX.e.pdf>.

early United States regulation of ozone-depleting substances helped to spur an international process that ultimately resulted in the Montreal Protocol, the agreement that phased out ozone-damaging chlorofluorocarbons.⁶ Thus, there is no natural tension between domestic regulation and the ability of the United States to conduct foreign policy on climate change or related matters.

The EPA also claimed in its petition denial that the benefits of unilateral regulation of greenhouse gases by the United States could be "lost" because increases in emissions by developing nations could "overwhelm" them. Pet. App. A86. Yet again, past diplomatic experience casts doubt on such an assertion. Early United States reductions of ozone-depleting substances were not overwhelmed by increased emissions from other nations; indeed, reductions by the United States were key to securing concomitant reductions by other nations. See RICHARD ELLIOT BENEDICK, OZONE DIPLOMACY 6 (1991) ("[A]n individual nation's policies and leadership made a major difference. The United States undertook such leadership in achieving international agreement on ozone protection. The U.S. government set the example by being the first to take regulatory action against the suspect chemicals. Later, it developed a comprehensive global plan for protecting the ozone layer and tenaciously campaigned for its international acceptance through bilateral and multilateral initiatives. . . .") (emphasis in original). See also John K. Setear, *Ozone, Iteration and International Law*, 40 VA. J. INT'L L. 193, 196 (1999).

The EPA's foreign policy rationale for withholding regulation might perhaps have some rationality if it were United States policy to seek leverage against other nations for

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⁶ Montreal Protocol on Substances that Deplete the Ozone Layer, Sept. 16, 1987, S. TREATY DOC. NO. 100-10 (1987), 1522 U.N.T.S. 3 (entered into force Jan. 1, 1989).

mandatory emissions reductions, by withholding mandatory domestic reductions unless and until other nations agreed to mandatory reductions as well. In that event, it might be the case that any premature domestic reductions would be overwhelmed by other nations' failure to comply.

But any such reasoning is belied in this case by the government's own actual international policy on climate change, which eschews a policy of pursuing mandatory reductions in favor of voluntary action. The United States has formally articulated, and is actively pursuing, a policy of encouraging voluntary action on the part of developing nations, consistent with the economic development priorities of those nations. This policy is exemplified by United States participation in the Asia Pacific Partnership on Clean Development and Climate.⁸ While *Amicus* takes no position

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⁷ The EPA's petition denial cites the Montreal Protocol as an illustration of its point that international agreements requiring mutual mandatory reductions are necessary to ensure that the benefits of unilateral reductions are not lost. The EPA's example, however, makes *Amicus'* point. The Montreal Protocol shows that a leverage strategy is only plausible if a state actually engages in bargaining: under Presidents Ronald Reagan and George H.W. Bush, the United States actively participated in and signed the Montreal Protocol, pursuing a leverage strategy similar to that the EPA cited. By contrast, current climate policy has formally rejected a diplomatic strategy of bargaining for mandatory reductions.

⁸ See Fact Sheet: The Asia-Pacific Partnership on Clean Development and Climate, available at <http://www.whitehouse.gov/news/releases/2006/01/20060111-8.html>; James L. Connaughton, Chairman, White House Council on Environmental Quality, Testimony before the United States Senate Committee on Commerce, Science & Transportation Subcommittee on Global Climate Change (Apr. 5, 2006) (describing the Asia-Pacific Partnership on Clean Development and Climate Change as "focusing[] on voluntary/practical measures to create new investment opportunities, build local capacity, and remove barriers to the introduction of cleaner, more efficient technologies").

on the merits of this policy, it is difficult to see how domestic regulation under § 202(a)(1) could “weaken” the government’s ability to persuade developing nations to make voluntary reductions consistent with their own priorities.

The United States has declined to pursue mandatory emissions reductions under the auspices of the U.N. Framework Convention on Climate Change,⁹ the Kyoto Protocol,¹⁰ or any other international bi-lateral or multi-lateral process whose purpose is to provide the forum for negotiating *quid pro quo* reductions in greenhouse gas emissions. Administration policy has remained consistent on this point. In 2001, the President sent a letter to four Senators stating his opposition to the Kyoto Protocol, and reversing his earlier policy of calling for mandatory emissions cuts.¹¹ Two weeks later, the United States abandoned the Kyoto Protocol, announcing that it did not support the agreement and would not transmit it to the Senate for its advice and consent to ratification.¹² The government then began entering into bi-lateral and multilateral agreements with other nations geared *not* toward bargaining over targets and timetables for mandatory reductions, but instead toward voluntary

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⁹ United Nations Framework Convention on Climate Change, May 9, 1992, S. TREATY DOC. NO. 102-58 (1992), 31 I.L.M. 849, President George H.W. Bush signed the Treaty and it was ratified by the Senate in 1992, S. Rep. No. 103-35, at 76-78 (1993).

¹⁰ Kyoto Protocol to the United Nations Framework Convention on Climate Change, Dec. 11, 1997, 37 I.L.M. 22.

¹¹ See Text of a Letter From the President, Mar. 13, 2001, available at <http://www.whitehouse.gov/news/releases/2001/03/20010314.html> (“I do not believe, however, that the government should impose on power plants mandatory emissions reductions for carbon dioxide, which is not a “pollutant” under the Clean Air Act.”).

¹² See, e.g., U.S. Won’t Follow Climate Treaty Provisions, *Whitman Says*, N.Y. TIMES (Mar. 27, 2001).

programs.¹³ In December 2005, nations gathered in Montreal, Canada for the Eleventh Session of the Conference of Parties to the Rio Declaration and the First Meeting of the Parties to the Kyoto Protocol. There, the United States reiterated that it is not pursuing a leverage strategy; rather, the nation’s official position opposes any such formal negotiations.¹⁴

Thus, domestic regulation of greenhouse gases would seem consistent with, not contrary to, the government’s foreign policy on global climate change. Whatever the best international strategy on climate change might be, there is

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¹³ These international agreements currently include: (a) the Methane-to-Markets Partnership; (b) the International Partnership for a Hydrogen Economy; (c) Carbon Sequestration Leadership Forum; (d) Generation IV International Forum; (e) Renewable Energy and Energy Efficiency Partnership; (f) Regional and Bilateral Cooperation; (g) Global Environmental Facility; (h) Tropical Forest Conservation Act (TFCA) and (i) the Asia-Pacific Partnership on Clean Development and Climate. See Secretary, Climate Change Fact Sheet, The Bush Administration’s Action on Global Climate Change (May 18, 2005), available at <http://www.state.gov/oes/rlfs/46741.htm>.

¹⁴ See Harlan Watson, Senior Climate Negotiator and Alternate Head of U.S. Delegation, Remarks on President’s Non-Paper (Dec. 2, 2005) available at <http://www.state.gov/g/oes/rls/rm/57688.htm> (“The United States is opposed to any such discussions under the Framework Convention . . . The U.S. position remains consistent: We see no change in current conditions that would result in a negotiated agreement consistent with the U.S. approach. . . We are not a party to the Kyoto Protocol and we do not support any such approach under the Convention for future commitments.”); Paula Dobriansky, Under Secretary of State for Democracy and Global Affairs and Head of U.S. Delegation to the Conference of Parties to the UNFCCC, Remarks to the Conference of Parties to the UN Framework Convention on Climate Change (Dec. 7, 2005), available at <http://www.state.gov/rls/rm/2005/57867.htm> (“[T]he United States opposes] formalized discussions—specifically formalized discussions that provide a basis for negotiations. It is our belief that progress cannot be made through these formalized discussions . . . [W]e also believe firmly that negotiations will not reap progress, as I indicated, because there are differing perspectives”).

nothing in the record, relevant diplomatic experience or the government's own foreign policy on climate change, to support EPA's foreign policy rationale for withholding domestic regulation. On any applicable standard of review, it is not entitled to any special deference.

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III. An Agency's Use of a Foreign Policy Trump to Avoid Domestic Regulation Mandated by Congress Would Raise Serious Separation of Powers Concerns and Might Well Compromise Diplomacy

Lacking any statutory delegation or relevant diplomatic precedent, the EPA petition denial relies on vague notions of executive power in support of its argument that foreign policy concerns should override congressional intent. This argument has troubling implications beyond this case, the Clean Air Act, or the context of global warming. In certain contexts, it is clearly appropriate for courts to defer to executive determinations about the foreign policy interests of the United States. But where Congress has carefully divided domestic and foreign policy tasks, as it has in the global climate change context, vague and speculative invocations of foreign policy should be insufficient to displace the congressional scheme.

The foreign policy trump the EPA has invoked here cannot be confined to the Clean Air Act. Numerous statutes require administrative agencies to make "judgments" prior to regulating, while conditioning those judgments on specific statutory criteria.¹⁵ Agencies may not override those criteria

¹⁵ See, e.g., 42 U.S.C. § 7409 (creating two-step process for establishing national ambient air quality standards, including threshold determination whether pollutant is harmful to health and welfare); § 7411(b)(1) (requiring EPA Administrator to regulate emissions from stationary sources by first listing a "category" of sources when "in his judgment it causes or contributes to air pollution which may reasonably be anticipated to endanger health of welfare"). See also Federal Food, Drug,

for policy reasons that are *ultra vires*. *Whitman v. American Trucking*, 531 U.S. 457 (2001). Contrary to the EPA's argument, *ultra vires* foreign policy reasons are no exception. If the Court were to accept a foreign policy override even where Congress has clearly set forth wholly domestic criteria, as it has in § 202(a)(1), then virtually any statute requiring agency "judgment" could be transformed into a discretionary question of foreign relations, raising serious separation of powers concerns.

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It is no answer to suggest that, even if an area of domestic regulation has not yet produced international negotiations, it might do so in the future, requiring domestic regulatory abstinence now for the sake of future foreign policy. The range of domestic issues over which the federal government might be involved in international negotiations is vast, and opportunities for such executive invocation of a foreign policy trump would be difficult to cabin. The traditional foreign policy agenda has expanded to include a wide variety of social, cultural, labor, environmental and health issues that were previously thought to be exclusively domestic concerns. See Jack L. Goldsmith, *Federal Courts, Foreign Affairs and Federalism*, 83 Va. L. Rev. 1617, 1671-

and Cosmetic Act, 21 U.S.C.A. § 355 (authorizing the Food and Drug Administration to regulate "new drugs," which requires a threshold determination based on the definition of "new drug" in Section 321(g)); Occupational Safety and Health Act, 29 U.S.C. § 652(8) (defining "occupational safety and health standard"); *Indus. Union Dep't, AFL-CIO v. Am. Petroleum*, 448 U.S. 607, 614-15 (1980) (establishing that OSHA definition contains a threshold determination that the toxic poses a significant health risk in the workplace); Safe Drinking Water Act, 42 U.S.C. § 300g-1(b)(1)(B) (requiring EPA to publish a maximum contaminant level goal and promulgate a national primary drinking water regulation for a contaminant if the Administrator determines, among other things, that "in the sole judgment of the Administrator, regulation of such contaminant presents a meaningful opportunity for health risk reduction for persons served by public water systems").

72 (1997) ("Traditionally, public international law regulated relations among nations. It rarely overlapped with domestic law, and it rarely regulated private activity. Today, by contrast, it frequently regulates both public and private activities that were formerly domestic concerns." (internal citations omitted)). There are literally thousands of international instruments, including treaties, non-binding declarations, executive agreements, voluntary undertakings, memoranda of understanding, partnerships, and the like, to which the United States is currently party, or in which the United States plays some role or *could* play some role in the future.¹⁶

In some instances, the implications of the EPA's position might benefit the United States as a practical matter; in others, they might not. But there is a danger that in the long term, the diplomatic interests of the United States might well be compromised, not enhanced, if executive agencies had plenary power to allow foreign policy considerations to trump regulatory judgments that Congress required them to make. Administrations of different political leanings have all from time to time made representations internationally that their negotiating positions are limited by Acts of Congress and that

¹⁶ On environmental matters alone, there are over a thousand such agreements. "By 1992, there were more than 900 international legal instruments (mostly binding) that were either fully directed to environmental protection or had more than one important provision addressing the issue." ENGAGING COUNTRIES: STRENGTHENING COMPLIANCE WITH INTERNATIONAL ENVIRONMENTAL ACCORDS 1 & n.1 (Edith Brown Weiss & Harold K. Jacobson, eds., 1998) (describing compilation undertaken by editors). Since then, the United Nations Treaty Series catalogues an additional 173 bilateral and 44 multilateral treaties under the category of "Environment." A standard compilation, updated through 2003, identifies 166 major non-binding international instruments related to the environment. See INTERNATIONAL ENVIRONMENTAL SOFT LAW: COLLECTION OF RELEVANT INSTRUMENTS (W.E. Burhenne, ed., 1993).

there are minimum domestic statutory standards that must be observed. This is particularly true in negotiations on trade, fisheries, commercial access, and military aid. Freeing the Executive from the constraints of domestic legislation in these and other instances would fundamentally alter the practice of diplomacy, and jeopardize the careful balance of power and roles that characterize the management of United States foreign relations.¹⁷ The executive latitude implied by the EPA's petition denial in this case thus might well come at a high price, not only for Congress, which could see its statutory standards ignored, but for future presidents, who, in many instances, could no longer credibly claim that they are unable to act in a way sought by a foreign negotiator. This would remove a valuable tool used regularly to limit the agenda for diplomacy.

An interpretation of the Clean Air Act that permits the invocation of a foreign policy override thus would invite the misuse of foreign policy to achieve domestic policy goals. It would enhance the executive branch at the expense of Congress under the guise of foreign policy necessity while undermining the long-term diplomatic interests of the United States. In an era of in which many domestic issues are tangled with foreign policy overtones, and where nations leverage and trade across many issues and interests, the opportunities for executive mischief are plenty. Thus diplomatic prudence, as well as the plain language of the Clean Air Act and this Court's precedents, support rejection of the EPA's expansive interpretation of its foreign policy discretion to ignore the domestic regulatory mandates Congress set forth in the Clean Air Act.

¹⁷ See LISA MARTIN, DEMOCRATIC COMMITMENTS, LEGISLATURES AND INTERNATIONAL COOPERATION 22 (2000) ("In democracies institutionalized legislative integration is a key determinant of the credibility of commitments").

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CONCLUSION

For the foregoing reasons, and those stated in the Brief of Petitioner, the judgment of the Court of Appeals should be reversed.

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REGIONAL GREENHOUSE GAS INITIATIVE

Memorandum of Understanding

WHEREAS, the States of Connecticut, Delaware, Maine, New Hampshire, New Jersey, New York, and Vermont (the "Signatory States") each individually have a policy to conserve, improve, and protect their natural resources and environment in order to enhance the health, safety, and welfare of their residents consistent with continued overall economic growth and to maintain a safe and reliable electric power supply system; and

WHEREAS, there is a growing scientific consensus that the increase in anthropogenic emissions of greenhouse gases is enhancing the natural greenhouse effect resulting in changes in the Earth's climate; and

WHEREAS, climate change poses serious potential risks to human health and terrestrial and aquatic ecosystems globally and in the Signatory States including: more severe droughts and floods; atmospheric warming resulting in increased concentrations of ground-level ozone (smog) and associated adverse health effects; changes in forest composition as dominant plant species change; increases in habitat for disease-carrying insects like mosquitoes and other vectors; increases in algal blooms that damage shellfish nurseries and can be toxic to humans; sea level rise that threatens coastal communities and infrastructure, saltwater contamination of drinking water and the destruction of coastal wetlands; increased incidence of storm surges and flooding of low-lying coastal areas which would lead to the erosion of beaches; and

WHEREAS, a carbon constraint on fossil fuel-fired electricity generation and the development of a CO₂ allowance trading mechanism will create a strong incentive for the creation, development, and deployment of more efficient fuel burning technologies and processes, as well as renewable energy supplies, demand-side management practices and actions to increase energy efficiency, and will lead to less dependence on the import of fossil fuels; and

WHEREAS, reducing our dependence on imported fossil fuels will enhance the region's economy by augmenting the region's energy security and by retaining energy spending and investments in the region; and

WHEREAS, the Signatory States wish to establish themselves and their industries as world leaders in the creation, development, and deployment of carbon emission control technologies, renewable energy supplies, and energy-efficient technologies, demand-side management practices; and increase the share of energy

used within the Signatory States that is derived from secure and reliable supplies of energy; and

WHEREAS, climate change is occurring now, and continued delay in taking action to address the emissions that cause climate change will make any later necessary investments in mitigation and adaptive infrastructure much more difficult and costly; and

WHEREAS, to address global climate change and in order to do their fair share in addressing their contribution to this collective problem while preserving and enhancing the economic welfare of their residents, the Signatory States find it imperative to act together to control emissions of greenhouse gases, particularly carbon dioxide, into the Earth's atmosphere from within their region.

NOW THEREFORE, the Signatory States express their mutual understandings and commitments as follows:

1. OVERALL ENVIRONMENTAL GOAL

The Signatory States commit to propose for legislative and/or regulatory approval a CO₂ Budget Trading Program (the "Program") aimed at stabilizing and then reducing CO₂ emissions within the Signatory States, and implementing a regional CO₂ emissions budget and allowance trading program that will regulate CO₂ emissions from fossil fuel-fired electricity generating units having a rated capacity equal to or greater than 25 megawatts.

2. CO₂ BUDGET TRADING PROGRAM

A. Program Adoption. Each of the Signatory States commits to propose, for legislative and/or regulatory approval, the Program substantially as reflected in a Model Rule that will reflect the understandings and commitments of the states contained herein. The Program launch date will be January 1, 2009 as provided in 3.C. below.

B. Regional Emissions Cap. The regional base annual CO₂ emissions budget will be equal to 121,253,550 short tons.

C. State Emissions Caps. The regional base annual CO₂ emissions budget will be apportioned to the States so that each state's initial base annual CO₂ emissions budget is as follows:

Connecticut:	10,695,036 short tons
Delaware:	7,559,787 short tons
Maine:	5,948,902 short tons
New Hampshire:	8,620,460 short tons
New Jersey:	22,892,730 short tons
New York:	64,310,805 short tons
Vermont:	1,225,830 short tons

For the years 2009 through 2014, each state's base annual CO₂ emissions budget shall remain unchanged.

- D. Scheduled Reductions. Beginning with the annual allocations for the year 2015, each state's base annual CO₂ emissions budget will decline by 2.5% per year so that each state's base annual emissions budget for 2018 will be 10% below its initial base annual CO₂ emissions budget.

E. Compliance Period and Safety Valve.

- (1) Compliance Period. The compliance period shall be a minimum of three (3) years, unless extended after a Safety Valve Trigger Event (described below). A subject facility must have a sufficient number of allowances at the end of each compliance period to cover its emissions during that period.

(2) Safety Valve Trigger.

- (a) Safety Valve Trigger. If, after the Market Settling Period (as defined below), the average regional spot price for CO₂ allowances equals or exceeds the Safety Valve Threshold (defined below) for a period of twelve months on a rolling average (a "Safety Valve Trigger Event"), then the compliance period may be extended by up to 3 one-year periods.
- (b) Safety Valve Threshold. The Safety Valve Threshold shall be equal to \$10.00 (2005\$), as adjusted by the Consumer Price Index (CPI) plus 2% per year beginning January 1, 2006.
- (c) Market Settling Period. The Market Settling Period is the first 14 months of each compliance period.

- F. Offsets. The Program will provide for the award of offset allowances to sponsors of approved CO₂ (or CO₂ equivalent) emissions offset projects for reductions that are realized on or after the date of this MOU. Offset allowances may be used for compliance by units subject to the Program. Among the key features of the offset component of the Program are:

(1) General Requirements.

- (a) Minimum Eligibility Requirements. At a minimum, eligible offsets shall consist of actions that are real, surplus, verifiable, permanent and enforceable.

- (b) Initial Offset Types. The initial offset project types that may be approved by a Signatory State are: landfill gas (methane) capture and combustion; sulfur hexafluoride (SF₆) capture and recycling; afforestation (transition of land from non-forested to forested state); end-use efficiency for natural gas, propane and heating oil; methane capture from farming operations; and projects to reduce fugitive methane emissions from natural gas transmission and distribution. The measurement and verification protocols and certification processes will be consistent across the Signatory States and incorporated into each State's program.

- (c) Additional Offset Types. The Signatory States agree to continue to cooperate on the development of additional offset categories and types, including other types of forestry projects, and grassland re-vegetation projects. Additional offset types will be added to the Program upon approval of the Signatory States.

(2) Initial Offsets Geography and Limits.

- (a) Geographic Location of Offset Projects. Offset allowances may be awarded to projects located anywhere inside the United States, provided:
- (1) allowances for projects located inside a Signatory State shall be awarded on the basis of one allowance for each CO₂ equivalent ton of certified reduction; and
- (2) allowances for projects located outside the Signatory States shall be awarded one allowance for every two CO₂ equivalent tons of certified reduction.

- (b) Limit on Offsets Use. In each compliance period, a source may cover up to 3.3% of its reported emissions with offset allowances.
- (3) Offsets Trigger and Reset.
 - (a) Offsets Trigger. If, after the Market Setting Period (defined above), the average regional spot price for CO₂ allowances equals or exceeds \$7.00 (2005\$) per ton for a period of twelve months on a rolling average (an "Offsets Trigger Event"), then:
 - (1) offset allowances may be awarded to projects located anywhere in North America; and
 - (2) offset allowances will be awarded on the basis of one allowance for each CO₂-equivalent ton of certified reduction; and
 - (3) the percentage of offsets that a source may use to cover its emissions shall increase to 5.0% of its reported emissions for the compliance period in which the Offsets Trigger Event occurs.
 - (b) Offsets Reset. After an Offset Trigger Event, the limits on geography and use of offsets set forth in Section F.2. shall once again apply commencing at the start of the subsequent compliance period.
- (4) Safety Valve Offsets Trigger and Reset.
 - (a) Safety Valve Offsets Trigger. If a Safety Valve Trigger Event has occurred twice in two consecutive 12-month periods (a "Safety Valve Offsets Trigger Event"), then:
 - (1) offset allowances may be awarded to projects located anywhere in North America or from international trading programs; and
 - (2) offset allowances may be awarded to projects located anywhere in North America or credits from international trading programs shall be awarded on the basis of one allowance for each CO₂-equivalent ton of certified reduction; and

- (3) the percentage of offsets that a source may use to cover its emissions shall increase to 5.0% of its reported emissions for the first three years of the compliance period and 20% of its reported emissions for the period beginning with the fourth year of the compliance period and continuing through the end of the compliance period.
- (b) Safety Valve Offsets Reset. After a Safety Valve Offsets Trigger Event, the limits on geography and use of offsets set forth in Section F.2. shall once again apply commencing at the start of the subsequent compliance period.
- G. Allocations of Allowances. Each Signatory State may allocate allowances from its CO₂ emissions budget as determined appropriate by each Signatory State, provided:
 - (1) each Signatory State agrees that 25% of the allowances will be allocated for a consumer benefit or strategic energy purpose. Consumer benefit or strategic energy purposes include the use of the allowances to promote energy efficiency, to directly mitigate electricity ratepayer impacts, to promote renewable or non-carbon-emitting energy technologies, to stimulate or reward investment in the development of innovative carbon emissions abatement technologies with significant carbon reduction potential, and/or to fund administration of this Program; and
 - (2) the Signatory States recognize that, in order to provide regulatory certainty to covered sources, state-specific rules for allocations should be completed as far in advance of the launch of the Program as practicable.
- H. Early Reduction Credits. Each Signatory State may grant early reduction credits for projects undertaken after the date this Memorandum is signed and prior to the launch of the Program as defined in 3.C. at facilities subject to the Program, which projects have the effect of reducing emissions from the facility by (a) an absolute reduction of emissions through emission rate improvements; or (b) permanently reducing utilization of one or more units at the facility.
- I. Banking. The banking of allowances, offset allowances and early reduction credits will be allowed without limitation.
- 3. MODEL RULE FOR ESTABLISHMENT OF THE CO₂ BUDGET TRADING PROGRAM
- A. Model Rule. The Signatory States are collectively developing a draft Model Rule to serve as the framework for the creation of necessary statutory and/or

regulatory authority to establish the Program. The Signatory States will use their best efforts to collectively release this draft Model Rule within 90 days after the execution of this MOU for a 60-day public review and comment period. Comments received during this comment period shall be reviewed by the Signatory States, and revisions to the draft Model Rule will be considered. A revised Model Rule will be developed and released within 45 days of the close of the public comment period after consultation among the Signatory States.

- B. Legislation and/or Rulemaking. Each Signatory State commits to seek to establish in statute and/or regulation the Program and have that State's component of the regional Program effective as soon as practicable but no later than December 31, 2008.

- C. Launch of Program. The Signatory States intend that the first compliance period of the Program will commence January 1, 2009.

4. REGIONAL ORGANIZATION

In order to facilitate the ongoing administration of the Program, the Signatory States agree to create and maintain a regional organization ("RO") with a primary office in New York City. The RO will be a non-profit entity incorporated in New York and will operate pursuant to by-laws agreed upon by the Signatory States. The RO shall have an Executive Board comprised of two representatives from each Signatory State. The RO may employ staff and acquire and dispose of assets in order to perform its functions.

- A. RO Functions. The RO will have the following functions:

- (1) Deliberative Forum. Act as the forum for collective deliberation and action among the Signatory States in implementing the Program. The by-laws of the RO shall specify the process for deliberation and arriving at agreement to take collective action.
- (2) Emissions and Allowance Tracking. Act on behalf of each of the Signatory States in developing, implementing and maintaining the system to receive and store reported emissions data from sources and track allowance accounts for the Program.
- (3) Offsets Development. Provide technical support to the States for the development of new offset standards to be added to state rules.
- (4) Offsets Implementation. Provide technical assistance to the States in reviewing and assessing applications for offsets projects. Such technical assistance may include the development of model guidance documents for use by the States for potential sponsors of offset projects. At the

request of any Signatory State, the RO may assist in the review of any application for the award of offsets credits.

- (5) Limitation on Powers. The RO is a technical assistance organization only. The RO shall have no regulatory or enforcement authority with respect to the Program, and such authority is reserved to each Signatory State for the implementation of its rule.

- B. Funding for the RO. The Signatory States agree that the RO shall be funded at least in part through payments from each Signatory State in proportion to the State's annual base CO₂ Emissions Budget. The RO's budget shall be determined and approved by the RO's Executive Board.

5. ADDITION OR REMOVAL OF SIGNATORY STATES

- A. New Signatory States.

- (1) New Signatories. A Non-Signatory State may become a Signatory State by agreement of the Signatory States as reflected in an amendment to this MOU.

- (2) Expansion. The Signatory States shall work together to encourage Non-Signatory States to become Signatory States and shall welcome expressions of interest from Non-Signatory States with a goal to expand the geographic reach of the Program.

- (3) Massachusetts and Rhode Island. The Signatory States recognize the contributions of Massachusetts and Rhode Island to the design and development of the Program and the negotiation of this MOU. The Signatory States agree that Massachusetts and Rhode Island may become signatories to this MOU at any time prior to January 1, 2008, without any amendment to the terms of this MOU. In the event that authorized representatives of Massachusetts and/or Rhode Island execute this MOU before such date, they shall receive the following CO₂ emissions budgets:

Massachusetts:	26,660,204 short tons
Rhode Island:	2,659,239 short tons

In the event that Massachusetts and/or Rhode Island become Signatory States under this paragraph, then the regional emissions budget set forth in Section 2.B. of this MOU shall be increased to include the allowance budgets of Massachusetts and/or Rhode Island.

- B. Withdrawal of a Signatory State. A Signatory State may, upon 30 days written notice, withdraw its agreement to this MOU and become a Non-Signatory State. In this event, the remaining Signatory States would execute measures to appropriately adjust allowance usage to account for the corresponding subtraction of units from the Program.
- C. Removal of Signatory State. Removal of a Signatory State shall be handled in the by-laws of the Regional Organization.
- 6. PROGRAM MONITORING AND REVIEW
 - A. The Signatory States agree to monitor the progress of the Program on an ongoing basis.

The Signatory States recognize the potential that the Program may lead to increased electricity imports and associated emissions leakage. To address this potential, the Signatory States:

 - (1) agree to promptly, but no later than April 1, 2006, establish a multi-state working group consisting of representatives from the energy regulatory and environmental agencies in the Signatory States. The multi-state working group shall:
 - (a) consider potential options for addressing leakage. Attention shall be paid not only to the potential effectiveness of a particular option to address leakage, but also to the potential impacts that option may have on energy prices, allowance prices, electric system reliability and on the economies of the RGGI states. In considering potential options, the working group shall consult with a panel of experts, stakeholders and representatives of the regional transmission organizations.
 - (b) issue its findings and conclusions by December 2007.
 - (2) agree to consider, after taking into account the analyses and findings called for under Section 6(e)(1), what actions should be taken to address potential leakage prior to the launch of the program in January 2009.
 - (3) monitor electricity imports into the Signatory States on an ongoing basis commencing from the start of the program, and report the results of the monitoring on an annual basis beginning in 2010.
 - (4) immediately following the first three-year compliance period and at any time thereafter, determine whether and to what extent any increase in emissions

- from electric generating units outside the Signatory States is attributable to the Program.
 - (5) if at any point after the launch of the program there is a determination that the Program has led to a significant increase in emissions from electric generating units outside the Signatory States, the Signatory States shall, after taking into account the analyses and findings called for under Section 6(e)(1), implement appropriate measures to mitigate such emissions.
 - (6) The Signatory States agree to pursue technically sound measures to prevent leakage from undermining the integrity of the Program.
- B. Monitoring of Reliability Impacts. The Signatory States recognize the paramount importance of maintaining a reliable electrical system in the region, and are committed to monitoring the Program on an ongoing basis to ensure that the Program will not result in electricity supply interruptions.
- C. Federal Program. When a federal program is proposed, the Signatory States will advocate for a federal program that rewards states that are first movers. If such a federal program is adopted, and it is determined to be comparable to this Program, the Signatory States will transition into the federal program.
- D. Comprehensive 2012 Review. In 2012, the Signatory States will commence a comprehensive review of all components of the Program, including but not limited to:
 - (1) Program Success. The Signatory States will review whether the Program has been successful in meeting its goals.
 - (2) Program Impacts. The Signatory States will review the impacts of the Program as to price and system reliability.
 - (3) Additional Reductions. The Signatory States will consider whether additional reductions after 2018 should be implemented.
 - (4) Imports and Emissions Leakage. The Signatory States will consider the effectiveness of any measures put in place to control emissions leakage.
 - (5) Offsets. The Signatory States will evaluate the offsets component of the Program, with attention to price, availability, and environmental integrity, and recommend whether changes to the Program are warranted.

7. COMPLEMENTARY ENERGY POLICIES

Each state will maintain and, where feasible, expand energy policies to decrease the use of less efficient or relatively higher polluting generation while maintaining economic growth. These may include such measures as: end-use efficiency programs, demand response programs, distributed generation policies, electricity rate designs, appliance efficiency standards and building codes. Also, each state will maintain and, where feasible, expand programs that encourage development of non-carbon emitting electric generation and related technologies.


8. AMENDMENT

This MOU may be amended in writing upon the collective agreement of the authorized representatives of the Signatory States.

[Signatures on Next Page]


This Memorandum of Understanding on the Regional Greenhouse Gas Initiative signed as of the 28th day of December, 2005.

THE STATE OF CONNECTICUT

By: 
M. Jodi Bell
GOVERNOR

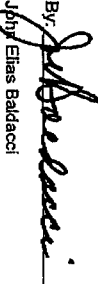
This Memorandum of Understanding on the Regional Greenhouse Gas Initiative signed as of the 20th day of December, 2005.

THE STATE OF DELAWARE

By: 
Ruth Ann Wimer
Governor

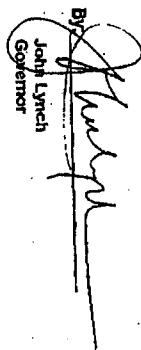
This Memorandum of Understanding on the Regional Greenhouse Gas Initiative signed as of the 30th day of December, 2005.

THE STATE OF MAINE

By: 
John Elias Baldacci
Governor

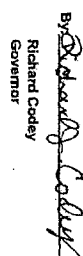
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STATE OF NEW HAMPSHIRE

By 
John Lynch
Governor

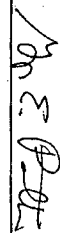
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STATE OF NEW JERSEY

By 
Richard Codey
Governor

This Memorandum of Understanding on the Regional Greenhouse Gas Initiative signed as of the 20th day of December, 2005.


STATE OF NEW YORK

By: 

George E. Pataki
Governor

This Memorandum of Understanding on the Regional Greenhouse Gas Initiative signed as of the 20th day of December, 2005.

STATE OF VERMONT

By: 
James Douglas
Governor

This Memorandum of Understanding on the Regional Greenhouse Gas Initiative signed as of the _____ day of _____, 20____.

COMMONWEALTH OF MASSACHUSETTS

By: _____
Its: _____

This Memorandum of Understanding on the Regional Greenhouse Gas Initiative signed as of the _____ day of _____, 20____.

**STATE OF RHODE ISLAND &
PROVIDENCE PLANTATIONS**

By: _____
Its: _____